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THE CATEGORIES OF DIALECTICAL MATERIALISM

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THE CATEGORIES OF DIALECTICAL MATERIALISM

Contemporary Soviet Ontology

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CHAPTER I

COMBAT ON TWO FRONTS

The history of Soviet philosophy is almost identical with the history of the successive interpretations which it has given to the 'rational kernel' in which Marx saw the essence of a demystified dialectic.[1]

The contributions of Engels and Lenin did nothing to simplify the task of the pioneers of Soviet philosophy. From the beginning there were disputes, on far from minor points, which demanded decisions from the authorities. The dialectic had to be 'purged', which meant laying the 'parricidal hand' on Hegel.

A. SIGNIFICANCE OF TWO CONDEMNATIONS

Even if it is the case – as Garaudy notes – that "the point of departure of all the recurring offensives since the last war are the studies of Kojève who affirmed that no dialectic is possible without man and his activities"[2] it is not to Kojève but to Lukács that we must look.

Geschichte und Klassenbewusstsein appeared in 1923. By the following year Deborin had already condemned it as a revisionist attempt to interpret Marx by rejecting Engels. He denies that one can find the slightest opposition between these two classics of Marxism, and if Lukács does find an opposition and can accuse Engels of having sunk into materialism, then he must be guilty of some error. This error lies in the way he understands the dialectic. According to Deborin, one of the basic thoughts of Lukács' book is that there is no dialectic other than the historical dialectic. A dialectic of nature is impossible. But, it is impossible only if one accepts Lukács' affirmation that the dialectic is the reciprocal activity of the subject and object.[3] Thus, "Comrade Lukács takes a position which he calls, for better or worse, historical materialism, but he denies philosophical materialism".[4] But, to refuse the dialectic of nature

[1] Marx [3], vol. I, p. 29.
[2] Garaudy, p. 105.
[3] Lukács, p. 20.
[4] Deborin [1], p. 106.

while trying to maintain a dialectic of history is a ruinous enterprise because it is based on a dualistic conception of the world.[5] A Soviet philosophy which is in the process of constituting itself considers this dualism as an attack on Marxist truth. Deborin goes on: Lukács is "an idealist as regards nature but a dialectical materialist in reference to historical-social reality".[6] In fact, one would have to say that he is idealist even in his conception of historical-social reality "since, as far as he is concerned, the category of consciousness is in a certain sense substance or genuine reality".[7] In this last comment of Deborin – an essential element for the understanding of contemporary Soviet philosophy – we see the preoccupation with the notion that one is never sure of having purged the dialectic of idealist impurities until one has succeeded in applying it to nature or, better, until one has induced it from nature.

A few years hence, Deborin, the defender of the dialectic of nature against the attacks of Lukács, will be condemned for Hegelian deviationism.[8] The notion of the dialectic undergoes such a change when applied to nature that even those with the best of intentions do not immediately seize all the consequences. But, what was it that Deborin taught? That the dialectic of nature is the reflection of the course taken by our subjective concepts? Not at all! For Deborin, the categories of dialectical materialism are objective categories which reflect the reality of the material world in the mind.[9] It is this reality and concreteness of the dialectical concept which specifically distinguish it from the empty and abstract concept of formal logic. These categories of diamat – being and becoming, form and content, substance and causality, quantity and quality, essence and appearance, general and particular, etc. – are not distinct and isolated as they were in the old Aristotelian logic.[10] To metaphysical thought which fragments and finally 'absolutises' each

[5] "One thing is obvious to us: Comrade Lukács rejects both materialism and the dialectic applied to nature...; from which we must conclude that our author is a *dualist*" (Deborin [1], p. 107).

[6] *Loc. cit.*

[7] *Loc. cit.*

[8] Decree of January 25, 1931 of the Central Committee of the Communist Party, published in *Pravda*, January 26, 1931.

[9] "For dialectical materialism the categories, i.e., general concepts like time, space and causality, are, on the one hand, logical determinations and, on the other, the real forms of things" (Deborin [2], p. 213).

[10] Deborin [1], p. 296, and [2], p. 213.

aspect of the real, he opposes dialectical thought which is relational, concrete and total. All this is completely orthodox.

He is accused of valuing Hegel too highly and of obscuring the differences between Hegel and Marx. "In his article 'Marx and Hegel' Deborin writes that 'already in Hegel the dialectic is drawn from the laws of the inner development of the material world'. Deborin thus denatures the real state of affairs and erases the limit which separates Hegel's idealistic dialectic from the materialistic dialectic of Marx, Engels and Lenin."[11] If he values Hegel too highly, it is because he himself has remained a Hegelian, a victim of *Hegelei.* Deborin's historical context supplies the reason for this. As leader of the 'dialecticians', he leads the fight against the 'mechanists' and his argument against Bukharin is based on the distinction between science and philosophy. Though they are mutually complementary, both science and philosophy are distinct disciplines. The originality of philosophy consists in the fact that it is a general methodology of knowledge. Whence the triple task of the philosopher: first, to develop a dialectical epistemology; then, to apply it to the natural sciences; and finally, to apply it to the sciences which deal with the evolution of society. A dialectic of knowledge; a dialectic of nature; a dialectic of history.[12] Deborin's error – his 'menshevíking idealism' – was to have thought possible the theory of a dialectic which would be neither dialectic of nature nor dialectic of history. Thus, Judin[13] chides him for having written that "the dialectic is the general method of the knowledge of nature, history and human thought".[14]

With the condemnation of Lukács and of Deborin one can say that, in essence, the 'rational kernel' of the dialectic is cleansed of the Hegelian taint. Lukács maintained that there is no dialectic without subjectivity,

[11] Judin, p. 132. With very rare exceptions, every time an author affirms that Hegel's dialectic is not a purely idealistic mystification and refers to some datum of nature, history, economy, etc., he is immediately accused of eliminating the difference between Hegel and Marx. For example: "In his analysis of Hegel's *Phenomenology of Spirit*, G. Lukács presents a totally false interpretation of the theory of the master and slave. ... He maintains that, for Hegel, the formation of man originates in the process of work, in the process of relatedness to things. ... Here Lukács ultimately identifies Hegel's thought on work with that of Marx. In effect, he attributes to Hegel the idea that consciousness originates in work" (Ovsjannikov, p. 62).

[12] Deborin [2], p. 23.

[13] Judin, p. 136.

[14] Deborin [2], p. 1.

without the negative power of the spirit. By condemning him, Soviet orthodoxy reaffirmed the existence of a dialectic of nature. Is this to say that the dialectic of nature should be understood as having no reference to the knowing subject? Does not such a dialectic presuppose in some way an epistemological theory which would transcend the empiricism of science? More decisively, is the dialectic of nature a dialectic of the knowledge of nature? The decree of 1931 rejects this interpretation. The notion of the dialectic is in no way bound to that of subjectivity. A dialectic without subjectivity, dialectical materialism, a dialectic without *logos*, dialectical matter – this is the doctrine which Soviet philosophers have to defend against their opponents. Judin, in an article written some thirty years ago, indicates the meaning of this combat of orthodox Marxism on two fronts.[15]

B. DIALECTICAL MATERIALISM FACES ITS CRITICS

Who are these opponents who force the Soviet philosopher to fight on two fronts? This combat, writes Judin, is directed "on the one hand, against those who arbitrarily and vulgarly reject any dialectic in favor of bourgeois positivism – like Aksel'rod when writing that 'the materialist dialectic is nothing other than empiricism' – and, on the other hand, against those who while claiming to study the materialist dialectic are actually replacing Marx' dialectic with that of Hegel".[16]

For Marxism is not just any miserable compromise between Feuerbach and Hegel. Even in the socialist camp there are philosophers who have not succeeded in detecting that special type of unity which insures the internal solidity of dialectical materialism. Judin mentions the case of Karev who wrote that "Marxism is made up, on the one hand, of the dialectic of Hegel and, on the other, of the materialism of Feuerbach".[17] This, for Judin, is the source and beginning of all future deviations. If Marxism were simply an 'agglomeration' (*sostavlenie*) of mechanist materialism and idealist dialectic, it would soon fall apart. Neither Aksel'rod nor Deborin was ever a dialectical materialist. The first failed to under-

[15] Judin, ch. 2.
[16] Judin, p. 144.
[17] Judin, p. 132.

stand that one could be a dialectician without being an idealist.[18] The Hegelianism of the second prevented him from seeing the dialectic of the concrete.

As we will gradually come to see, contemporary dialectical materialism faces the same double front: positivist materialists and idealist dialecticians – philosophical schools which have never been able to attain that totality of philosophical truth of which dialectical materialism is the defender. Each touches only a facet of diamat; which is why they write 'dia-mat'.[19] It is this duality which Judin fights. And his position is best expressed in: "materialism without the dialectic is 'blind' and the dialectic without materialism is 'empty'."[20] Both must be maintained – which is precisely what many contemporary philosophers, for different reasons, refuse to do. Assembling their complaints here will allow us, after having studied contemporary dialectical materialism, to decide whether or not they are justified.

All the efforts of Soviet thought aim at defending the unity of materialism and the dialectic. All opponents of Marxism, irrespective of their own philosophic inspiration, deny this unity.

It is denied, first of all, that the natural sciences can gain anything at all from dialectical materialism. For the rationalist scientist, this intrusion is more likely to retard than to stimulate scientific progress.[21] In view of the futility "of philosophical interpretations in natural science"[22], there is no reason to make an exception of dialectical materialism. In fact, "the great discoveries of natural science in recent decades [are] due to research and to verification of scientific theories, and owe absolutely nothing to the laws of the dialectic".[23] The complete distinction between science and philosophy seems so evident that one is forced to ask what pushes Soviet philosophy to posit this cooperation. Some critics are not above suggesting an apologetic motive. If, as Štraks says, "contemporary science does not take one step forward without discovering

[18] What is more, these doctrinal errors cause political deviations. The vulgar materialist wanders aimlessly: he is an opportunist (like Bukharin). The idealist dialectician becomes a deviationist of the Left (like Trotsky). Cf. Judin, p. 142.
[19] Lefèbvre [5], vol. I, p. 55.
[20] Deborin [1], p. 245.
[21] Hook, p. 28.
[22] Lefèbvre [5], vol. I, p. 51.
[23] Walter, p. 159.

contradiction in things"[24], it is evident that the laws of the dialectic have an apodictic character. And 'scientific socialism' would then be the conclusion of this line of reasoning. But, for Lefèbvre, the real process is as follows: one began by constructing a general theory and one "'finds' the dialectic of nature and then imposes it on natural science".[25] Thus, the problem of scientific socialism is reduced to that of the dialectic of nature.

The critics of Marxism-Leninism admit to the existence of a dialectic of nature but in a secondary and derived sense. The dialectic "... includes nature to the extent that nature is a part of historical reality (in the interaction (*Stoffwechsel*) between man and nature, the domination and exploitation of nature, nature as ideology, etc. ...)".[26]

On the other hand, all these critics are unanimous in denying the existence or even the possibility of a dialectic intrinsic to nature. Thus, the conflict involves the very notion of dialectical materialism. What is meant by dialectic seems so unassimilable to what is commonly meant by materialism that Hyppolite can write: "... Dialectical materialism, a formula of Marx and of Engels ... seems quite obscure and even in a sense contradictory...."[27] It is contradictory because the notion of dialectic implies by definition a necessary reference to the notion of subject. In one of his recent works, Chambre writes: "There is a dialectic only because man is present in nature. Because man is present in reality, there is a dialectic of nature. But, if one abstracts from this presence, the content of the natural sciences is not dialectical".[28] Soviet philosophy does not find dialectical materialism contradictory because it has completely emptied and denatured the notion of dialectic. Whence it can be used to designate the deterministic laws of nature. Official Marxism confuses the dialectic with vulgar mechanicism.[29] When it is inserted into being, the dialectic becomes useless.[30] Worse, it is neither true nor false: it becomes "a rhapsody

[24] Štraks, p. 74.
[25] Lefèbvre [5], vol. I, pp. 80–81.
[26] Marcuse, pp. 143–144.
[27] Hyppolite [2], p. 110.
[28] Chambre, p. 261.
[29] Marcuse, p. 150.
[30] "It [Soviet orthodoxy] juxtaposes things and relations between persons, adds to the dialectic a dose of naturalism which – no matter how wisely measured it is – immediately dissolves it, puts in the object, into being, that which is least able to subsist there – the dialectic" (Merleau-Ponty, pp. 88–89).

of generalities".[31] In the end, dialectic indicates little more than movement: one writes 'dialectic' and one thinks 'dynamic evolution', 'progress'.[32]

This 'naturalisation' of the dialectic serves to explain Soviet epistemology, unless the reverse is the case. Hyppolite noted that Marx no longer admitted an equivalence between objectification and alienation. While for Hegel any objectification is an alienation, Marx praises Feuerbach for having substituted "... the primary positivity of nature for the negation of negation".[33] A reflexive epistemology was thus replaced by a realistic theory of knowledge. This realism was further accentuated in *Materialism and Empirio-Criticism*, which is a return to "an epistemology which is pre-Hegelian or even pre-Kantian".[34] Dialectical materialism is thus but a vulgar realism.[35] The dialectic has been completely dissolved into a naive ontology. Finally, the conflict between realistic materialism and dialectical thought has issued in a primitive naturalism. Whence the distinctive oscillation between the dogmatism of a constitutive consciousness affirming *a priori* the rationality of the world and the empiricism of a constituted consciousness which has of the world a reflection which is only approximately accurate.[36]

Since the dialectical unity between subject and object is destroyed, Soviet philosophy seems to its opponents to be a sort of syncretism: "That which is officially called dia-mat ... seems at first glance to fall back to the level of a despised Hegelianism. This only seems to be the case: as a matter of fact, dia-mat is not philosophically any better than the thought of Victor Cousin. It is an eclectic salad (so much vulgar materialism, so much scientific rationalism)."[37]

Briefly the criticisms can be summed up as follows: dialectical materialism is useless for the sciences, contradictory in itself, and ruinous for the dialectic.

[31] *Op. cit.*, p. 87.
[32] "Denn der dialektische Materialismus hat, wie auch der Positivismus, nur die Dynamik im Auge und betrachtet nicht genügend das statische Element, das in aller Veränderung und Entwicklung beharrende" (Wetter, p. 19).
[33] Hyppolite [1], p. 238.
[34] Merleau-Ponty, p. 84.
[35] Wahl [1], p. 689.
[36] Sartre, vol. I, p. 31.
[37] Lefèbvre [5], vol. I, pp. 55–56.

C. STALIN AND DE-STALINISATION

The evolution begun by the double condemnation of the mechanists, and the mensheviking idealists culminated in the publication of *Dialectical and Historical Materialism* (1938). These thirty pages, of which over 200 million copies were printed[38], controlled philosophic activity in the U.S.S.R. until 1953. It mattered little if the content agreed with the teaching of Marx, Engels and Lenin; official doctrine slavishly followed the 'genius', Stalin.[39] "Stalin's *Dialectical and Historical Materialism*, written by an incomparable master of the Marxist dialectical method and summing up the immense practical and theoretical experience of bolshevism, raises dialectical materialism to a new and superior level: it literally reaches the summit of Marxist-Leninist philosophical thought."[40]

As a matter of fact, Stalin's teaching is original and cuts short previous attempts. First of all – and this is an innovation of Stalin – the work begins not with philosophic materialism but with the dialectical method. Stalin retains only the first two of Engels' three laws (transition from quantity to quality, unity and conflict of contradictories, negation of negation) but adds two others: the reciprocal conditioning of phenomena, and the law of the movement and development of phenomena.[41] He thus succeeds in explaining the dialectical method without recourse to the negative. Stalin maintains, of course, that the dialectic is the 'soul of Marxism'. But dialectic, for him, is little more than the dynamic and progressive movement which finds its origin in the contradictions intrinsic to things.

Idealism is refuted by the three fundamental traits of Marxist philosophical materialism: materiality of the world, primacy of being over consciousness, and intelligibility of the world. This is, in thesis form, the doctrine of Lenin in *Materialism and Empirio-Criticism.*

Without waiting for the official attack of the Twentieth Congress of the CPSU, Soviet philosophers had already begun to criticize Stalin in

[38] Fetscher, p. 12.
[39] *Kratkij filosofskij slovar'* (French ed.), pp. 368–370.
[40] *Biographie de Staline*, p. 88.
[41] The law of the organic bonds of phenomena involves the second, seventh, eighth, tenth and twelfth elements of the dialectic (Lenin [4], pp. 181–182). The law of movement and development involves the third (cf. Wetter, pp. 366–373).

1954.[42] And a leading article in the *Voprosy filosofii*, published after the Congress, was very hard on Stalin.[43] Stalinism was a great burden for philosophy both because of its sectarian spirit and because of the insufficiencies in its handling of dialectical materialism.

In describing the spirit of Stalinism, the author uses terms almost as hard as those used by Lefèbvre or Sartre.[44] Devotion to Stalin had caused the 'classics', Marx, Engels and Lenin, to be neglected. Thought had vegetated into a veritable scholasticism.[45] Instead of studying concrete and vital problems, Soviet philosophers had dealt in generalisations which were completely out of contact with reality. A dogmatic attitude replaced free research. Whence "the appearance of a collection of dogmas on problems of Marxist philosophy of science; dogmas which stultified thought and blocked creative work in dialectical and historical materialism and even in the history of philosophy".[46] One of these dogmas was the affirmation – totally false – that the fundamental traits of the dialectical method and of philosophic materialism as presented by Stalin permitted the solution of all problems. And now, to the doctrine of Stalin.

It is nonsensical to treat the dialectical method ahead of philosophic materialism. One must first know what the material world is before trying to explain it.[47] This separation of the dialectic and materialism shows that Lenin's thesis on the unity of the dialectic, logic and epistemology had been ignored. Kammari acknowledges this: "Works on dialectical materialism often treat the dialectic and materialism in isolation one from the other. They do not correctly show the unity of materialism and of the dialectic as *Weltanschauung* and as method...."[48] There were omissions: for example, that of the law of the negation of negation which was very important not only for Hegel but also for Engels and Lenin.

Most serious, perhaps, was the absence of a consideration of the fun-

[42] In *VF*, 1954,5, 203–204, the author attacks the collective work *Dialektičeskij materializm* because it presents the theses of Stalin.
[43] 'XX s'ezd KPSS i voprosy ideologičeskoj raboty' [The Twentieth Congress of the CPSU and Questions of Ideological Work], *VF*, 1956,2, 3–18.
[44] Lefèbvre [3], pp. 111–117.
[45] *VF*, 1956,2, 15.
[46] *Loc. cit.*
[47] *VF*, 1954,5, 199.
[48] Kammari [1], p. 8.

damental categories of the materialist dialectic.[49] Conceived by Stalin, the dialectic was an abstract *Deus ex machina*, while for a truly Marxist philosophy the dialectic is fruitful only when situated in the real. And, it is precisely the categories (the possible and the necessary, the abstract and the concrete, etc.) which reflect the multiplicity of the dialectical aspects of the world.

Xljabič attributes these weaknesses to "this nihilism toward Hegel and his dialectical method".[50] Since the condemnation of Stalin there has been a revival in philosophy. The Soviet press must, continues our author, bring itself up to date and stop spreading Stalin's views on Hegel: "One still hears – and this is from Stalin – that Hegel's philosophy is just an aristocratic reaction to French materialism and the French Revolution."[51] This 'vulgar simplification' is to be found both in the *Great Soviet Encyclopedia* and in the *Short Philosophic Dictionary*.[52]

Thus, there has been a change of attitude since the death of Stalin. There is a resumption of Lenin's project "to organise a systematic study of Hegel's dialectic from a materialist point of view".[53] This 'return' to Hegel has led to a rediscovery of the importance of categories for a philosophical synthesis: it is also a return to Deborin.[54] Since 1954, publications on the subject have been numerous and some professors offer special courses on it in the universities.[55] That this is not an exclusively philosophical concern is shown by the fact that *Kommunist*, which reaches the cultivated public, published a long article on the role and importance of the categories of dialectical materialism.[56] All other branches of knowledge are being restructured on the basis of the notion of

[49] *VF*, 1956,2, 15.
[50] Xljabič, p. 109.
[51] *Op. cit.*, p. 110.
[52] Under the entry 'Gegel'', the *Bol'šaja sovetskaja enciklopedija* notes the decision of the CPSU against Hegel in 1944. The same attacks against Hegel are to be found in *Bol'ševik*, 1944, 7 and 8. But, the *Malaja sovetskaja enciklopedija* (1958) no longer notes these judgements on Hegel.
[53] Xljabič, p. 109.
[54] 1961 saw the publication in Moscow under the title, *Filosofija i politika*, of a large work of Deborin containing his writings, articles and speeches which caused his condemnation. The Stalin period is, therefore, definitively ended.
[55] Tugarinov, V. P.: *Sootnošenie kategorij dialektičeskogo materializma* [Correlation of the Categories of Dialectical Materialism], Leningrad 1956.
[56] Gak, pp. 35–37.

category. There are numerous studies on 'the categories of historical materialism', 'the categories of logic', 'the categories of esthetics', etc. Soviet philosophers have thus responded to the invitation of the Twentieth Congress which demanded an end "... to dogmatism and scholasticism which are foreign to the creative spirit of Marxism-Leninism".[57]

Without denying the essential bond between dialectical materialism and historical materialism, the present work is limited to the categories of dialectical materialism. Also, we have limited ourselves to Soviet thought since the death of Stalin. Thus, there are few comparisons with the thought of the 'classics' of Marxism. Finally, we have made no reference to Communist philosophical activity outside of the Soviet Union not because we think there are several Communist philosophies[58] but simply because the volume of work done in the U.S.S.R. justifies a study on it alone.

[57] XX *Congrès du parti communiste de l'Union soviétique*, p. 468.
[58] Communist philosophers are, as a matter of fact, very touchy on this point. See, for example, Klaus, pp. 68–69.

CHAPTER II

CATEGORIES OF DIAMAT AND CATEGORIES OF SCIENCE

One of the first concerns of Soviet philosophers is to determine the place of philosophy in reference to the other scientific disciplines. This question is currently taken up in studies on the categories of dialectical materialism. The problem: do the categories of philosophy and the categories used in the other disciplines have the same degree of generality?

To show the originality of their own position, Soviet philosophers begin by briefly outlining the pre-Marxist theories on the subject. Kedrov distinguishes three types of pre-Marxist explanation. "Antiquity knew only one science. Philosophy included the first elements of scientific knowledge of nature ... There was between philosophy and all the other branches of knowledge only one type of relationship – the subordination of all branches of knowledge to philosophy."[1]

Social needs, however, gradually eroded this conception of philosophy. As of the Renaissance, the other sciences detached themselves, one by one, from philosophy. Nevertheless, philosophy continued to maintain its claim to the title 'science of sciences'. In this reference *Osnovy*[2] cites the famous quotation of Descartes: "Ainsi toute la philosophie est comme un arbre, dont les racines sont la Métaphysique, le tronc est la Physique et les branches qui sortent de ce tronc sont toutes les autres sciences...."[3] Thus the ancient principle of the subordination of the sciences to philosophy was maintained.

During the 19th century and in reaction to *Naturphilosophie* we find "... a new current of thought, *positivism*, which denied philosophy any right to independent existence and which wanted to eliminate philosophy entirely".[4] It is claimed: "... science is its own philosophy and needs no other philosophy."[5] For the Soviet philosophers this error is no less serious than the first.

[1] Kedrov [6], pp. 83–84.
[2] *Osnovy marksistskoj filosofii* (abbr. *Osnovy*), p. 24.
[3] Descartes, *opera* (éd. Adam et Tannery), vol. IX, p. 14.
[4] Kedrov [6], p. 84.
[5] *Ibid.*, p. 85.

In brief, non-dialectical thought could conceive the relationship between the sciences and philosophy only in the form of an alternative: either philosophy or science. This resulted, on the one hand, in the absorption of the sciences by philosophy (Schelling, Hegel) and, on the other, in the dissolution of philosophy in the sciences (contemporary positivism).

A. THE NEED FOR COOPERATION

What, then, is the proper methodological principle? For contemporary Soviet philosophy it is the dialectical relationship between the categories of general and particular. If it is really the case that, dialectically speaking, the general is not the negation of the particular and the particular is not the negation of the general, then one is not caught in a trap. The Soviet argumentation begins with the historical fact of the established autonomy of the different scientific disciplines. The existence of these different sciences, which over the centuries asserted their independence from philosophy, is not only a matter of fact but a matter of right. But this progressive differentiation of the sciences with a concomitant restriction of the object of philosophy might easily lead to the elimination of philosophy. There is no domain of the real which is not investigated by some science. "Under these circumstances, what remains to philosophy? The unhappy fate of Lear who by sharing his kingdom with his daughter found himself without anything at all?"[6] Obviously, this is not the case. Philosophy does find its domain limited but this does not mean that it has lost its proper object; it cannot lose this since the categories of science do not have the same extension as those of philosophy. The former are special and determined categories which apply only to a definite region of knowledge; the latter, on the contrary, are universal and general notions.[7] Science deals with the particular, philosophy with the general. Therefore, philosophy is distinct from science.

However, there is another aspect to the dialectical relationship: the general does not exist above and beyond the particular: thus, philosophy is organically united with science. "This conception of the relations between philosophy and the other sciences is based on a correct, dialectical

[6] *Osnovy*, p. 25.
[7] Rozental' [2], p. 26.

solution of the relations between the general and the particular in scientific knowledge: far from being antagonistic or separated one from the other, these two contraries form a unity and penetrate each other."[8] The only valid relationship between science and philosophy is that of coordination. These two disciplines are two inseparable aspects of one and the same human adventure. "Dialectical materialism and the other sciences are interdependent and mutually complementary – and this stimulates their development."[9] The constantly recurring terms are independence in interdependence, coordination but without subordination, distinction in interaction. For example, this Kedrovian passage: "... progressive philosophy and the other sciences are far from being totally independent of each other or even antagonistic, as the positivists maintain; they are tightly compenetrating while remaining independent to a certain extent."[10] This interdependence of science and philosophy is far from being arbitrary but, on the contrary, has an ontological foundation – the identity of the object being investigated. "Philosophy studies the same world that is studied by the sciences."[11]

Between philosophy and the sciences and between philosophers and scientists there must be a 'mutual' assistance.[12] And the defenders of orthodoxy take advantage of this fact to call to order both the philosophers and, especially, the scientists.

An official article in *Voprosy filosofii*[13] notes that some philosophers have quite badly misunderstood the question of the relationship of the sciences and philosophy. For these philosophers – called 'dogmatists' in the article – science is merely a reservoir from which one can pell-mell draw arguments to shore up philosophic doctrine. The same idea is to be found in a recent book, *Dialectical Materialism*. Česnokov criticises those Soviet philosophers who are content with a banal concord of science and philosophy, and who are typical apologists. He reminds them that science is not there simply to confirm dialectical materialism but that it must present new problems for solution. "In reality, what is important is not at all to prove by the most recent examples the correctness of the

[8] Kedrov [6], p. 86.
[9] Vostrikov, p. 21.
[10] Kedrov [6], p. 86.
[11] *Osnovy*, p. 25.
[12] *VF*, 1959,3, 13.
[13] *VF*, 1957,3, 3–18.

theses of dialectical materialism, but to develop materialist theory by solving the philosophic questions of science which are ready for solution."[14] But, the apologists of Marxism do not understand these suggestions. If they find a scientific theory in contradiction with their own philosophic principles, this theory is condemned out of hand. Instead of trying to discover if, beneath its faulty philosophic expression, the scientific theory does have some value, they reject the whole thing *en bloc*. Anathemas instead of discussion. For example, M. A. Markov, a philosopher of science, published an article on the 'nature of physical knowledge'. Obviously, this was not a simple repetition of the theses of *Materialism and Empirio-Criticism* but an effort to understand the problems posed by quantum physics and the theory of complementarity. For Markov, "quantum physics is in no way opposed to the reality of the world but, on the contrary, affirms its existence".[15] But, this philosopher was of the opinion that one must reformulate the notions of causality, existence and reality in order to accomodate the discoveries of modern science. Thus, the theory of complementarity shows us "that the concept of reality includes the macroscopic form of our knowledge of the microcosm".[16] Markov adds that this is not a subjectivist position because the macroscopic form of reality (measure by our instruments) is not less real and objective than the microscopic reality which it studies.

For his pains Markov was called 'Kantian', 'agnostic', 'idealist'[17] and his view was described as 'hieroglyphic theory'. Kedrov, who led the Soviet delegation to the international congress at Geneva had to suffer the humiliation of hearing Franck (U.S.A.) say "that Soviet philosophers condemn the theory of relativity, as do the Thomists". "This shows how much Marxism suffers abroad from the vulgar simplifications of some Soviet philosophers in matters concerning the philosophic questions of

[14] Česnokov, pp. 405–406. Since it was denounced by some Soviet philosophers, one should not be surprised that this apologetic attitude became the target of the critics of Marxism-Leninism. Hook writes: "Like the religious fundamentalists who see in every new scientific discovery a confirmation of some biblical text, some orthodox dialectical materialists see in the progress of modern science a progressive vindication of the doctrines of the founding fathers" (Hook, p. 26).

[15] *VF*, 1947,2, 164.

[16] *Idem*. It is question of the influence of measuring instruments on the position and speed of particles.

[17] *VF*, 1948,3, 225. Ten years later an article in the same journal recognized the fact that they had been unjust to Markov (*VF*, 1957,3, 16).

modern science."[18] For several years now there has been a strong reaction in the Soviet Union against the philosophers who for all practical purposes have been keeping science in a state of subordination. They are told to be careful in discussion, not to dogmatise, and not to call a scientist who opposes them an idealist. That there are disputed questions is completely normal.[19]

But there is another tendency – that of the philosophers who do not want to take part. They do not necessarily admit publicly that philosphy is purely and simply independent of science, but they act as if this were the case. It is they who maintain that science is still in the process of formation, that it rejects today what it accepted yesterday, and that, as a result, it would be risky to build a philosophy on such unsure terrain. It is better to wait. The article which denounces this attitude has no difficulty in showing its falsity. Such an attitude ends up in the positivist affirmation that "science is philosophy".[20]

The basic complaint against the scientists is that they are too passive in their relations with the philosophers. In 1955 the official press started a series 'Philosophic Problems of Modern Science' but the contributions were too few and not of the quality expected.[21] There are, doubtless, some scientists who accept the idea of a relationship between science and philosophy, but this is for them a one-way street, a *relatio non mutua*, where philosophy is related to science but not vice versa. Science supplies philosophy with new subject-matter; but science has nothing to gain from philosophy. Whence the opinion noted by Kedrov: "The sciences are to furnish material to enrich dialectical materialism while philosophy is of almost no help to the sciences."[22]

The scientist wants to remain neutral but this desire to deal with nothing but the facts-in-themselves is neither possible nor legitimate. "In scientific research it is impossible that theories be left at the door of the laboratory. It is impossible that theory remain in the background in the hope that the facts, the facts-in-themselves, will appear, There is

[18] Kedrov [7], pp. 42–43.
[19] *VF*, 1957,3, 18.
[20] *Idem.*
[21] *VF*, 1957,3, 13.
[22] Kedrov [7], p. 46. It should be noted that the view of these scientists is shared by some Soviet philosophers of a positivist bent (Cf. *VF*, 1956,1, 188–194).

no science where there is no theory."[23] As proof, there is the so-called neutrality of bourgeois scientists: "the positivists reject philosophy only verbally. ... Actually, they are at the same time spreading a non-scientific philosophy which reduces experience to the sum of sensations ... and the conclusion of which is the negation of the intelligibility of the world – which leads to agnosticism or to idealism."[24]

However, this attitude is illegitimate since science "... cannot limit itself to describing phenomena; it must also explain them".[25] From the moment that the scientist becomes aware of his task, he must use certain philosophic notions. His choice, therefore, is not between philosophy and no philosophy, but between a bad philosophy and the true philosophy.

The Soviet thesis of mutual assistance is clear: no juxtaposition of science and philosophy but a living and fruitful cooperation. The philosopher has to compare his work with the results of science; the scientist must go beyond strict scientific neutrality and be guided by the philosophic categories of dialectical materialism.

B. THE NATURE OF THE COOPERATION

Once having determined the legitimacy of scientific cooperation, one has to ask about its extent. Concretely speaking, what does science bring to philosophy and philosophy to science? Science provides the materials and a more penetrating interpretation of reality. It presents to philosophy the world in its complex multiformity. It is true that these are particular truths which deal each time with only a limited portion of the cosmos. But, they are scientific conclusions which cannot be doubted. This is why a philosophy which bases itself on such data – 'generalising' them – will be a scientific philosophy in the strongest sense of the term. One frequently finds phrases such as: "The union of the scientists with dialectical materialism is a union with the truth. This is why it is unbeatable."[26] Con-

[23] *Osnovy*, p. 28.

[24] *Osnovy*, pp. 27–28. Kedrov calls to mind the fact that bourgeois philosophers use the theory of relativity and of complementarity to establish indeterminism and subjectivism, and the theory of reciprocal change of elementary particles (positron and electron to photon) to conclude to the annihilation of matter, thus rejuvenating the old theory of the 'disappearance of matter'... (Kedrov [7], p. 36).

[25] *Osnovy*, p. 28.

[26] *VF*, 1959,3, 15.

temporary Soviet philosophers stress this point which allows them to distinguish dialectical materialism from all other philosophic systems. "Dialectical materialism is a scientific philosophy which is qualitatively distinct from those philosophic systems which retard the progress of progressive science".[27] However, while dialectical materialism is scientific, it is something other than science. There is the danger of not understanding exactly what the Marxists mean by 'scientific socialism' or 'scientific philosophy'. Undoubtedly, the word 'scientific' still has some reference to what we mean by it in such expressions as 'natural sciences' or 'exact sciences'. But, there is more to it than that. Marxism wants to be scientific even in its philosophic doctrine. In the expression 'scientific socialism' the adjective 'scientific' expresses the dialectical unity of science and philosophy. Nothing is more foreign to dialectical materialism than the idea of reducing philosophy to science. This is why philosophy can assist scientific thought.

This contribution of philosophy to science – far more important than that of science to philosophy[28] – exists at different levels. At a still quite superficial level, philosophy offers to science a general methodology: this is the logical function of thought whether it be the organon of Aristotle with its logistic and mathematical logical complements, or the new organon of dialectical logic. This first contribution of philosophy to scientific investigation is necessary but insufficient since the scientist must use all the laws and categories of dialectical materialism. Any scientific process must be guided by the *Weltanschauung* made up of logic, dialectic and theory of knowledge. "The founders of Marxism demonstrated that the materialist dialectic is the sole method of thought which corresponds to the new stage of development in science and that it has become absolutely necessary for the sciences...."[29] The Soviets then bring out a few particularly precious theses. For example, Lenin's theory on the inexhaustibility of matter. How can the scientist pursue his research if he thinks he has reached the ultimate? Then there is the realist theory of knowledge without which the fight against agnosticism and idealism is impossible. Most important, perhaps, there is the theory of dialectical contradiction, which is so fruitful in different domains of knowledge. "Contemporary science has

[27] Česnokov, p. 368.
[28] Kaganov, p. 74.
[29] Česnokov, p. 368.

only one language, that of the dialectic. Absolute and relative in relativity theory; continuous and discontinuous, possible and real in quantum mechanics; finite and infinite in mathematics; internal development of the organism and the milieu; quantitative and qualitative transformations in biology, etc. ... These are the categories of the dialectic which regularly recur in contemporary science...."[30] The scientist, in general, uses notions like reality, matter, the infinite, etc. ... but cannot himself define them. "Since they are the most general, these categories are found as philosophic categories in all the other sciences...."[31] Finally, "the philosophy of Marxism-Leninism is the introduction to the knowledge of the different domains of reality...."[32] The discoveries of science pose questions which the scientist cannot answer without a philosophic doctrine.

The defensive function of scientific activity makes even more apparent this necessity of a well-structured thought. The scientist who limits himself to the facts-in-themselves is absolutely incapable of detecting all the falsifications which bourgeois thought has illegitimately grafted onto the body of science. "If he is not armed with the true doctrine of materialism, the scientific specialist is incapable in ideological battle of resisting reactionary ideology and falls into an idealist and non-scientific philosophy...."[33] It is an error for scientists to think that the fight against idealism and metaphysics is of benefit only to philosophy and not to science.[34] An erroneous philosophic doctrine "it not just an unhappy appendage; it is an ulcer on the body of science ... and it gravely affects its development".[35] While bad philosophy retards science, dialectical materialism eliminates all obstacles and promotes scientific research.

This is why Topčiev could write in a recent article, without the slightest hesitation: "What is the Leninist principle of the development of science?

[30] Česnokov, p. 378.
[31] Gak, p. 36.
[32] *Osnovy*, p. 27.
[33] *Osnovy*, p. 29. "From all around come questions which are precisely tied up with philosophic concepts. These questions are posed in the context of the battle of the Mičurinites against the partisans of Weismann and de Morgan. ... The fight of the Mičurinites against the partisans of Weismann and de Morgan makes evident the importance of basing the natural sciences on philosophy in order to defeat bourgeois ideas" (Gak, p. 45).
[34] *VF*, 1959,3, 19.
[35] Kedrov [7], p. 36.

It consists above all in the necessary character of its truly scientific doctrinal foundation which is the philosophy of dialectical materialism."[36]

C. CRITICAL REMARKS

The condemnation of the theory of relativity and the unhappy Lyssenko affair – to mention only the more recent – made such a bad impression that almost all non-Communist philosophers think that Soviet philosophy is an obstacle for the development of the sciences. S. Hook writes rather severely that dialectical materialism "... finally produces censorship, dictatorship, and persecution of the sciences".[37] To determine the value of Marxist philosophy for the development of science one would have to make a judgement on the various theses of dialectical materialism. And this is not our task. We are interested solely in the epistemological problem of the relations between science and philosophy.

Marxist orthodoxy has the great merit of having affirmed and reaffirmed the validity and necessity of philosophic research in the face of positivistic science. But, this is not all. The present orientation toward a reciprocal cooperation between science and philosophy is basically encouraging in its intention if not in its realisation.

Monnerot does not have the right to affirm that the Marxists "take the dialectical method to be a scientific method".[38] On the contrary, they distinguish the method of philosophy and that of the sciences. "The founders of Marxism demonstrated the necessity and the inevitability of a bond between experimental research and scientific theory, on the one hand, and between scientific theory and materialist philosophy, on the other."[39] Because they talk of interdependence does not mean that "... they confuse levels, they mistake degrees".[40] Contemporary Soviet

[36] Topčiev, p. 4.
[37] Hook, p. 27. "Man kann ohne Übertreibung sagen, dass alles was die russische Wissenschaft an Positiven geleistet hat (und das ist – auch seit 1917 – nicht wenig), nicht *infolge*, sondern trotz der Anwendung der Dialektik geschaffen wurde. Wo immer die Anwendung versucht wurde kam es zur Hemmung, ja manchmal sogar zur Zerstörung der wissenschaftlichen Forschung" (Bocheński, p. 102). Cf. also Zirkle, C.: *Death of Science in Russia*, Philadelphia 1949.
[38] Monnerot, p. 212.
[39] Česnokov, p. 369.
[40] Monnerot, p. 212.

philosophers have clearly seen that philosophy and science are two disciplines which are incomplete in reference to their object, i.e., the cosmos. They are, therefore, correct in refusing a separation which results in empty dogmatic analyses for philosophy and sceptical empiricism for science. "Ignorance of dialectical materialism at the moment of the important discoveries in microphysics and in cosmology inevitably leads the scientists to positivism. Similarly, separation of Marxist philosophy from the various contemporary sciences can lead the dialectical-materialist philosopher to dogmatism and scholasticism."[41]

But Monnerot is more to the point when he writes: "The foregoing in no way means that there cannot be a dialectical process behind scientific thought; but it is precisely behind; the dialectic is not on the horizontal plane of results and scientific methods but on the plane or, better, on the vertical trajectory where nature produces science."[42] Is it the case, in fact, that philosophy is on the same plane as science? Certainly not. One finds in Soviet thought a hesitation due to a lack of epistemological clarity. This is why some accuse contemporary Soviet philosophy of dogmatically smothering science and others accuse it of falling into scientism.

Against the Greek heritage of philosophy as *scientia rectrix*, the Soviets fight to establish that science is not subordinated to philosophy. Along the same lines they give to philosophy the function of generalising the data of science. "The general laws of the dialectic are indissolubly bound up with the particular laws of the concrete sciences and, conversely, the particular and specific laws are closely bound up with the general laws."[43] There is here a tendency for Marxist philosophy to appear as a *Weltanschauung* based solely on scientific activity.

On the other hand, because it is more universal than science, philosophy is at a higher ontological level. In his article on the classification of the sciences, Kedrov puts the dialectic in first position. Not simply because one must begin somewhere, but because "... the science which opens a unilinear series of sciences is that which is the most universal, which is first, and which determines all scientific knowledge".[44] As a matter of

[41] Česnokov, p. 377.
[42] Monnerot, p. 220.
[43] Česnokov, p. 367.
[44] Kedrov [6], pp. 110–111.

fact, the theses of dialectical materialism enjoy a real transcendence in reference to the conclusions of the sciences. All agree that certain of Engels' scientific explanations are dated if not invalid. Nevertheless, the philosophic doctrine of *Dialectic of Nature* still has all its value. The same is the case with Lenin's concept of matter.

This is why some critics of Marxism are of the opinion that it is legitimate to maintain that — like Husserl although with other presuppositions — dialectical materialism leads to a scientific philosophy understood as the science of sciences. For Hook, dialectical materialism "... generates a mythical philosophy of nature and prepares the way for a doctrine of 'double truth'; one ordinary, scientific and secular, the other esoteric, 'dialectical' and superior".[45] In short, dialectical materialism would be the present-day heir of the *Naturphilosophie* of the 19th century.

The contemporary Soviet philosopher would immediately denounce the impotence of metaphysical thinkers who separate what is one. One can only see the scientific element while the other sees but the philosophic component. But it does seem that the responsibility for these divergent interpretations lies in the epistemological theory of Soviet orthodoxy. The surbordination of science to philosophy is doubtless too much, but simple coordination is not enough. We touch here on the cause of the difficulties which contemporary Soviet philosophy has foisted on science. 'Distinguish in order to unify' is very good. However, this methodological principle is fully senseful only in the perspective of the 'degrees of knowledge' as formulated by Wahl: "We cannot understand the value of science, i.e., declare at the same time this value as universal in its domain and as somehow particular in reference to reality, unless we make use of the idea of levels of reality."[46] And the methodological principle of contemporary Soviet philosophy does not go far enough in this direction. This is why Soviet orthodoxy tends to consider the principles of philosophy to be *constituent principles* of scientific elaboration whereas they should be considered no more than *regulatory principles*[47], i.e., principles which orient thought without intervening in the structure of knowledge. In general, one can say that Soviet orthodoxy exaggerates the importance of philosophy for the development of science and ends up confusing scien-

[45] Hook, p. 27.
[46] Wahl [2].
[47] Maritain, pp. 69–112; especially p. 105.

tific activity with philosophic reflection on science. Their works can be read by a scientist only if he has the philosophic formation of a philosopher of science.[48] For example: "Dialectical materialism plays a directive role at every level of scientific investigation: at the beginning to determine the object and the scientific method as well as the way of conducting the experiment; at the end to do the theoretical analyses and to draw the conclusions from the collected facts."[49] Which goes to show that some forms of 'cooperation' are almost as dangerous as a clear decision on 'subordination'.

Soviet orthodoxy did not succeed in what it set out to do because it took too negative an attitude toward the notion of subordination. Since the disappearance of *Naturphilosophie* all philosophers are aware that subordination as understood by Aristotle and the classical systems is anachronistic. But, this notion contained a valuable element which must be preserved: the idea of 'infraposition' or – as Wahl says – the 'idea of levels of reality'. There are times when some Soviets are on the point of seeing it. But, failing to understand it clearly, they fall back on the notion of 'coordination' thinking that they thus are better able to preserve the necessary autonomy of science from philosophy. In fact, it is just the opposite that happens and the history of Soviet thought is there to prove it. If science and philosophy are coordinated, i.e., on the same horizontal plane, the scientist who is attentive to the structure of his object, eliminates philosophy. Whence the reaction of the philosophers who repeat that "dialectical materialism plays a directive role in science".

The paradox is only apparent. In order to maintain a genuine organic bond between science and philosophy one must leave the horizontal plane of coordination and put oneself on that of levels of depth. As a matter of fact, the methodological principle of the Marxists themselves – the distinction between the general and the particular – has to be clarified through the notion of infraposition.

[48] As a matter of fact, Soviet scientists spontaneously adopt a very different epistemological attitude and are not burdened by the 'ontological load' of the categories of reality, causality, etc., which are proffered them by the philosopher.
[49] Platonov [1], p. 31.

CHAPTER III

DEFINITION OF THE NOTION OF CATEGORY

It is always difficult in philosophy to try to give a precise and exhaustive definition of primary notions. And for a dialectical thought – one which wishes to remain 'open' – the effort seems almost impossible. This explains why contemporary Soviet philosophers are content to offer approximate definitions. Lenin treats this problem in passing :"Categories of thought are not an instrument of man but express the conformity to law of both nature and man."[1] But the 'classics' of Marxism do not offer a veritable elaboration of the notion of category.

There are two ways of attacking the problem: more epistemologically, or more ontologically. The *Short Philosophic Dictionary* chooses the first and offers the following definition: "Dialectical materialism considers the categories to be a reflection in the consciousness of the most general and essential aspects of nature and society."[2] In his excellent work *Correlation of the Categories of Dialectical Materialism*, Tugarinov is of the same mind: "The philosophic categories are notions which designate the most general objects, properties, aspects and relations of the real."[3]

Those who are more attentive to the ontological level, i.e., who pay more attention to the complexity of the real, include in their definition of the categories the notion of bond and relation. "The categories of the dialectic reflect general bonds and relations."[4] Gak is even more explicit: "Philosophic categories can be defined as follows: they are concepts which express the universal forms of being, the aspects and moments of the universal inter-connection and of movement, the nodal points in the net of phenomena; they are degrees in the process of the knowing of the objective world."[5]

It is useless to look for disagreement among these authors. According

[1] Lenin [4], p. 74.
[2] *Kratikij filosofskij slovar'* (French ed.), p. 64.
[3] Tugarinov, p. 4.
[4] *O "Filosofskix tetradjax" V. I. Lenina*, p. 132.
[5] Gak, p. 41.

to Marxist doctrine, the ontological and epistemological planes are inseparable. To say that the categories are general concepts is in no way to exclude the fact that these concepts indicate objects in inter-dependence. For the purposes of description, one must treat separately these two traits of every category, i.e., that it is the objective and universal concept of an object and that it expresses the inter-correlation of the real. Faithful to the Soviet example, we will begin with the epistemological aspect.

A. PRECURSORS

In the course of the history of thought the problem of the categories has been solved in many different ways. Contemporary Soviet philosophers distinguish those systems which in a certain sense point toward their own theory from those which are falsifications leading up a blind alley. Among the precursors they note Aristotle and Hegel, thus following the tradition of Engels who wrote: "Two philosophic streams: the metaphysical with immutable categories, and the dialectical (Aristotle and, above all, Hegel) with fluid categories...."[6]

Gorskij admits that it was Aristotle who first posed the question of the categories from a point of view of analysis of language. But he did not limit himself to logical categories. He dealt *ex professo* with ontological categories and this from a materialist point of view.[7] In contradistinction to Plato, whom he successfully refuted, Aristotle does not give the universal a reality outside of particulars and "he does not separate the form of thought from its content".[8] "Categories are but the primary divisions of being, of the objective world itself. ... According to Aristotle, it is not the categories or concepts which produce being, but being which expresses itself in the categories."[9]

However, Aristotle separated the different categories of being too much. Hegel has "the incomparable merit of having elaborated a system of categories which are subordinated, bound up one with the other, and mutually penetrating each other".[10] While contemporary Soviet philoso-

[6] Engels [2], p. 204. In *Anti-Dühring*, Engels admits "that Aristotle has already studied the most essential forms of dialectical thought" (p. 52).
[7] Gorskij, p. 17.
[8] *Istorija filosofii*, vol. I, p. 121.
[9] Rozental' [2], p. 17.
[10] Gorskij, p. 18.

phers recognise the value of Hegel's dialectification of the categories, it is vitiated for them by his idealism. On the basis of the identity of being and thought, Hegel concludes: "Everything is idea. ... This is why for Hegel the content of the categories is the manifestation of the movement of the Absolute Idea which becomes the essence and the foundation of all existents."[11] Hegel thus falls into an error at the opposite of subjective idealism, "he separates the categories from man, from the subject, and affirms that they exist outside and independent of human consciousness".[12]

This resistance to Hegelian epistemology is understandable. In its elaboration of the categories and other notions or concepts contemporary Soviet philosophy avoids the two extremes of idealism and empiricism: a specific instance of the combat on two fronts which we mentioned above. If we went into the question as the Soviets do, it would fill several chapters. But we can content ourselves with essentials.

Plato and Kant are the idealists most frequently cited. They have in common the realisation or hypostatisation of the categories. For Plato, categories or Ideas form a second world which is the only real one. Kant's subjective idealism conceives the categories as empty forms of the understanding. "Necessary, general and universal forms and relations, like causality, law, necessity, etc. ... are *a priori* characteristics of human understanding, i.e., they are independent of sense-experience."[13] In the 'Transcendental esthetic' there was a glimmering of materialism[14] but Kant was not able to sustain it. Whence his dualist solution which radically separates the form from the content in the categories. The end result was agnosticism and subjectivism. Asmus is able to write: "The Kantian doctrine on the synthesis of categories is marked by subjectivism. Kant pays no attention at all to the objective aspect of the categories and reduces them in the end to being but the logical predicates of generality and necessity."[15]

Contemporary Soviet philosophy thus reproaches all forms of idealism for separating the general from the particular. Contemporary idealism

[11] Rozental' [2], p. 28.
[12] *Loc. cit.*
[13] *Ibid.*, p. 26.
[14] "When he admits that a thing-in-itself, outside of us, corresponds to our representations, Kant is talking like a materialist. When he calls it inconceivable, transcendental and located beyond, Kant talks like an idealist" (Lenin [1], p. 176).
[15] Asmus [2], p. 47.

would be in the same line as the realists of the Middle Ages: both affirm that the universal exists outside the particular. The result is an unjustifiable separation of intellectual and sensible knowledge, and abstraction falls by the wayside. What Rozental' says of Hegel applies to all other forms of idealism: "He does not draw the general from the singular but deduces, on the contrary, the singular from the general, from concepts, from categories."[16] In fact, Hegel went astray because he did not see that "the possibilities of idealism [= of religion] are present in the first, elementary abstraction".[17]

Lenin certainly did not intend to condemn abstraction. It is rather the contrary which is the case. And contemporary Soviet philosophers remain faithful to him in that they concentrate their attacks on the various forms of empiricism. The wrong use of abstraction which leads to idealism is not worse than the refusal of all abstraction which condemns thought to remain at the level of vulgar empiricism. Soviet orthodoxy attacks the English empiricists and the authors of the *Encyclopédie française*, and is even more violent toward the founders of contemporary logical positivism.[18]

Empiricism is a commendable attitude in that it recognises the primacy of experience and of sense-knowledge. "In Locke the positive and valuable element was this profound conviction that without sensations and perceptions one cannot know objects – objects which he conceived as existing independent of man."[19] But Locke reduces the whole cognitive phenomenon to its bare empirical aspect of noting the datum. The categories, concepts and general notions are, for him, "artificial products of reason", just words. "Undoubtedly", says Rozental', "'man *in se*' was never seen by anyone, and such a man obviously does not exist. This is no reason for concluding that the concept 'man', 'man in general', is only a word which does not signify any objective reality."[20] To maintain, as does Hobbes, that the categories are but signs, empty names without objective content, is to fall into nominalism.

It is clear what contemporary Soviet thought will think about the

[16] Rozental' [2], p. 28.
[17] Lenin [4], p. 289.
[18] For criticism of positivism and empiricism, see Kursanov, Gulyga, and Mšvenieradze.
[19] Rozental' [2], p. 20.
[20] *Ibid.*, p. 21.

various forms of logical positivism. If the categories and concepts of logic are but "arbitrarily chosen postulates and rules of inference"[21] (Carnap's principle of tolerance), and if the categories of metaphysics are literally meaningless because metaphysics is based on propositions which are not analytic and the validity of which depends on the definition of its symbols[22] (the 'conventionalism' of Ayer), then the general concepts and categories of scientific materialism, like matter, causality, space, time, etc., are meaningless. Wittgenstein ended his *Tractatus*: "Whereof one cannot speak, thereof one must be silent."[23] We must conclude, say the Soviet philosophers, that "the problem of the existence of an objective world independent of man's consciousness is 'ineffable' and, in the end, a 'pseudo-problem'".[24]

Although it is more radical than classical empiricism, logical positivism is of the same nature; it contains the same error. It is based on the nominalist conception that categories and universals have no objective reality at all. All knowing is found in the *percipi*.[25] The result is scep ticism. Thus dialectical materialism notes the failure of idealist rationalism and of positivistic empiricism. Categories are neither real universals separated from singular existants, nor mere notions without objective content. The categories are both objective concepts and universal concepts. The correct solution, therefore, implies a realistic and dialectical theory of both intellectuai and sensible knowledge.

B. ABSTRACTION OF THE CATEGORIES

The thesis of the primacy of being over thought has a double value. On the ontological plane, it means that consciousness originates in matter of which it is one of the special existential forms – a definitely privi leged form because it is the property of highly organised matter, but it is nonetheless material.[26]

[21] Carnap, p. V.
[22] Ayer, especially chapter II.
[23] Wittgenstein, p. 107.
[24] Rozental' [2], pp. 33–34.
[25] "Modern idealism, the so-called logical positivists, semanticists, etc. offer nothing new when they adopt subjective idealism and the subjective-idealist rejection of scientific abstraction and of general concepts. ... Their 'realism' is identical to the 'realism' of Berkeley and contains absolutely nothing else" (Rozental' [2], p. 31).
[26] Xasxačix, pp. 62–113.

Epistemologically, this thesis reminds us of the priority of being over knowing. This is quite well expressed in the formula: *nihil in intellectu quod non prius fuerit in sensu.* Realism in intellectual knowledge is thus based on a fundamental realism in sensation. It is not surprising that contemporary Soviet philosophers are vigorous in defending this principle. They continue against contemporary criticism what Democritus and Aristotle undertook against the sceptics of their time; and with the same arguments. On this precise point there is a complete identity of view between dialectical materialism and a realist philosophy, like Thomism. Contemporary Soviet philosophers insist on the objectivity and realism of sense-knowledge and do not forget that even at this low level it is a question of knowledge and not of a purely passive and mechanical 'recording'. The sensible qualities of objects – sound, color, taste – are really objective properties of material things, but they exist as perceived by the senses in a way distinct from the way they exist in things. Because it is a knowing, the faintest sensation contains a subjective aspect and an objective aspect. "The subjective form of human perceptions and sensations is due to their dependence on the structure of the sense-organ and on the state of the organism. However, these perceptions and representations reflect an objective content which depends neither on the structure of the senses nor on the state of the organism and, in fact, not on man at all."[27] This had to be mentioned since the opponents of realism always have the tendency to identify realism and chosism.

To use 'reflection', 'copy', 'picture' and the example of the camera is to risk being misunderstood. All of these notions are too mechanist and express only an aspect of the problem of knowledge. They are anachronistic and date from Lenin's polemics with the idealism of his time. Forced to emphasise the objective aspect of knowledge, Lenin put to the side – temporarily, at least – its subjective and dynamic element. The *Philosophic Notebooks* stressed the latter aspect. *Materialism and Empirio-Criticism* and the *Philosophic Notebooks* form a whole – a point which contemporary Soviet philosophy has understood.

[27] *Ibid.*, p. 128. De Vries asks himself if, for Soviet philosophy, the known datum is objective reality or only its sensible copy. The Leninist philosophers have never posed this question. But it seems that their realism would lead them to defend the thesis of the immediate grasp, without intermediary, of a *species.* De Vries does not hold this view (de Vries, pp. 35–37).

That the *Abbildtheorie* is not mechanist, that intellectual knowledge is not the dead action of a motionless perception – a photograph – is clear from the Marxist theory of abstraction. In his notes on the *Logic of Hegel* Lenin writes on the concept: "Knowledge is the reflection of nature by man. But this is no simple, immediate and total reflection; this process is made up of a whole series of abstractions, formulations, formations of concepts, of laws, etc...."[28]

Over the past ten years Soviet studies on the problem of abstraction have been numerous enough so that one can gain a clear idea of Soviet thought on the subject. Etymologically, abstraction is the process in which the mind separates what is united in the real. As in Andreev's nominal definition: "By abstraction one means the separation worked by the mind on a totality of objects of one or many properties in order to better be able to study them."[29] The mind isolates one element in order to concentrate on it. This is the first step of an intellect which progresses *modo dividendo et componendo*.

But, more profoundly, to abstract is also to extract from the data of sensation and of perception a particular property or a certain characteristic of an object which has particularly attracted our attention. "Very often, the objects and particular phenomena of nature strongly influence man because of some special trait. This, of course, forces him to concentrate on this aspect and to relegate all others to the background."[30] This constation puts us on the path toward the recognition that there are different depths present to man as observer. Abstraction is the process in which the mind passes over the superficial layers to attain nature in its veritable depth. In the process of abstraction thought moves in a threefold direction; or, rather – since the three aspects are complementary – it moves toward the same object by convergent paths.[31]

Contact with reality gives us the impression that it is a mass of phenomena and of singular objects which are totally unconnected. The first task of abstraction is to discover the essential element, that which under accidental appearances is the deepest and true nature of beings, what the

[28] Lenin [4], p. 150.
[29] Andreev [1], p. 161.
[30] Xasxačix, p. 151.
[31] See M. M. Rozental''s clear treatment of the subject, (Rosenthal, pp. 303–306) which I have freely used, completing it from other authors (cf. especially Gevorkjan, pp. 54–59).

Osnovy[32] calls the 'internal essence'. "The essence of a thing is its 'regularity' [*zakonomernost'*], that which forms the core, i.e., the fundamental element."[33] Thus, abstraction separates the essential from the accidental.

There is another way in which it reveals the depth of being. The senses perceive a changing multiplicity. "The direct view of reality gives one the impression that it is full of accidents, that everyting is subject to modifications and fluctuations of an accidental character, and that there is nothing stable or lasting in this succession of phenomena."[34] Thanks to abstraction thought perceives the necessary behind the contingent.

Finally, there is an element which is the result of the other two: "The power of abstraction is the power of generalization."[35] Sensation knows only singular existents and individual aspects; it ends in pure multiplicity. The mind can detect the general properties which are common to all the individuals. "In addition to their individual properties which are had in sensation, material beings also have a common foundation."[36] To abstract is to see the universal in the singulars.

Marx wrote in *Capital* that the ideal is nothing but the material "transported and transposed in the brain of man".[37] The explanation which contemporary Soviet philosophers give of this transposition (*Übersetzung*) shows that it is not a static and mechanical copy. There is an authentic *Aufhebung* of the material to the ideal – an *Aufhebung* which is the work of the mind operating on sense-data to extract the universal. The product of abstraction is the concept or the category, i.e., the general notion.

And Soviet philosophy is certainly one of the rare instances in contemporary philosophy of a continuation of the 'quarrel on universals' and of an Aristotelian solution thereto. For Aristotle, there is no universal (καθόλου) outside of the singulars (ἐπὶ πλείονων).[38] And Rozental' echoes:

[32] *Osnovy*, p. 166.
[33] Xasxačix, p. 148. "*Zakonomernost'*": literally, *conformity to law*. This concept is often used to indicate the regular character of the evolution of a being. German: *Gesetzmässigkeit*.
[34] Rosenthal, pp. 304–305.
[35] *Ibid.*, p. 305.
[36] Xasxačix, p. 148.
[37] Marx [3], vol. I, p. 29.
[38] Aristotle [3], VI, 13, 1038 bII.

"In reality, the general exists in the particular and by the particular because it expresses the identical aspects and properties, proper to particulars."[39] Thus, in the categories and universal notions it is necessary to distinguish two elements: the nature of the thing, and the universality. The universality (*intentio vel ratio universalitatis*) exists only by the mind; the nature or essence exists only in the singulars. The analogy between dialectical materialism and certain positions of the scholastics is too striking to have gone unnoticed. Already Struve "compared Marx to the 'realists' of the Middle Ages, for whom concepts existed by themselves, independent of phenomena. ... The category of objective value", wrote Struve, "is in a manner of speaking but the metaphysical correlate of the category of price."[40] Wetter points to a correspondence not with the realists but with the Thomists.[41] Popov, as befits a good logician, noticed this and replies: "Thomas of Aquinas distinguishes three types of universal: (1) *ante rem* (the general as the existence of things in the mind of God), (2) *in re* (the general in things), (3) *post rem* (the general as existing after things, i.e., in concepts). ... Anyone a little familiar with dialectical materialism knows that Marxist philosophy does not admit the existence of the general outside of singular things. What is more, this philosophy rejects the absurd political-religious fiction of a universal in the mind of God."[42] That the ultimate foundation of essences is or is not divine thought has a decisive importance for philosophy, but does not affect the noetic problem of the abstraction of the categories of being.

If a mediated knowledge through categories replaces the immediacy of sensation with its extreme variegation, is thought not impoverished? Of course, abstract thought seems drier and poorer: "It is true that abstract thought departs from reality; but it departs therefrom in order the better to know it."[43] The categories never exhaust their object but they reach nature much more intimately and profoundly than if this nature were

[39] Rosenthal, p. 333.
[40] *Ibid.*, p. 327.
[41] "Auf dem Gebiet der Erkenntnistheorie geht der dialektische Materialismus bei der Lehre vom Begriff und dessen Zustandekommen durch Abstraktion so weit dass er das Urheberrecht an dieser ausgesprochen thomistischen Lehre für sich in Anspruch nimmt" (Wetter, p. 637).
[42] Popov, p. 136.
[43] Xasxačix, p. 155.

perceived by the senses alone.[44] There is a qualitative difference between our sense-data or images and the categories. Thought is of another order and the categories in which it expresses itself are, therefore, of a nature other than that of images.

But, thought, i.e., intellectual activity, exists only in relationship with sensibility, i.e., with sense-perception. There are no categories which do not originate in images. "Abstract thought has no foundation other than the data of sense-knowledge". But qualitative distinction does not mean complete separation: "This is why one must avoid 'absolutizing' either intellectual or sensible knowledge."[45] This bond between the sensible and the intellectual is one of the more important dialectical aspects of knowledge. What is sure is that contemporary Soviet philosophers are aware of having offered a valid solution to the difficult problem of the nature of the categories. We will risk ourselves in a few observations.

C. THE 'THEORY OF REFLECTION' AND EMPIRICISM

"An epistemology which is pre-Hegelian and even pre-Kantian"[46] – this was Merleau-Ponty's view. And the author of the *Aventures de la dialectique* did not mean it as a compliment. But, whether one criticises or praises them, one cannot deny that contemporary Soviet philosophers have solved the problem of knowledge and of the categories of thought in a realist way. The thesis on the primacy of being over knowing, the importance given the problem of the universals, a clearly Aristotelian theory of abstraction, the affirmation that the categories of thought are the reflections of an extramental reality – all of this puts the epistemology of dialectical materialism in a tradition which has nothing to do with post-Cartesian idealism.

Of course, Soviet philosophy is and wants to be the heir of Hegel. But as regards this precise point of the relations between being and knowing and of the nature of the categories not only does it owe nothing to Hegel but it is very consciously opposed to him. And, how could it be

[44] "The force of abstraction lies in the fact that thanks to it thought discovers the profound causes of phenomena and thereby renders them intelligible for us. This is why scientific abstraction reflects reality more profoundly than does immediate observation" (Rosenthal, p. 303).

[45] Andreev [1], p. 153.

[46] Merleau-Ponty, p. 89.

otherwise? If anything is central to the philosophy of Hegel it is the identity of being and thought, of subject and object. If nature were exterior to the Logos (and not the Other of the Logos), and if knowledge implied a reference to any transcendent, one would have to say that the dialectic is discourse on a thing. But, as knowledge, the dialectic is knowledge of self. A philosophy of the understanding, like that of Kant, cannot get over the opposition between content and form. Hegel defends reason against the attacks of the Kantian critique and thinks that he has gotten around the conflict between the specified content and the abstract form because the Logos is at the same time itself and the Other of itself.

In its posing of the problem of knowledge dialectical materialism falls from the level of reason to that of the understanding.[47] And it falls not to the Kantian understanding and its *a priori* categories, but to that of Aristotle or even Democritus. Several theses of Aristotle are accepted: his 'materialist sensualism', his conception of the categories of being, etc. Other theses are rejected: hylomorphism, the theory of the four causes, the *physis* subject to finality, and the eighth book of the *Physics*.[48]

The new history of philosophy now being published devotes almost as many pages to Democritus as to Aristotle. And this, in order to stress the correctness of Democritus' analyses on the problem of knowledge. "Democritus made a great contribution to philosophy. He especially worked the theory of knowledge, and posed and solved in a materialist way the problem of the object of knowledge and of the role of sensation as the origin of knowledge, as well as the question of the knowledge of nature."[49] Having described Democritus' position on the two forms of knowledge – one bastard, the other genuine – and having shown that these two types of knowledge, although distinct, are not opposed since intellectual knowledge draws its origins and justification from sense-knowledge, the author concludes that "Democritus provided an excellent exposition of the theory of knowledge".[50]

Both as to sources and as to tenets, then, contemporary Soviet philosophy is realist. The criticisms and the taunts which it receives are those

[47] If dialectical materialism gives a large place to reason this is done in a realist perspective, i.e., to the extent that human reason as the principle of induction and deduction, of analysis and synthesis, is the discursive faculty.
[48] Cf. *Istorija filosofii*, vol. I, pp. 112–129.
[49] *Ibid.*, p. 98.
[50] *Ibid.*, p. 99.

which have already been used against realist epistemologies. The criticisms are based mainly on one objection: if our concepts are *Abbilder* or copies, how can we establish their objective character? Since the copy is not the original, what criteria have we for saying that the copy is faithful to the original?[51] Whence one concludes that since realism refuses to recognise the experimenter as part of the experimental system[52] it must end up in scepticism.[53] History has shown that a misunderstood realist system can in fact lead to scepticism. Sartre writes that the experimenter must belong to the experiment. But Marxism knows that knowledge is a vital act of the subject, in which the subject and object are one. It is also a positioned view, a knowledge which can define its extension and its rights because it knows itself to be human knowledge, i.e., knowledge that originates in sense-data and which, therefore, far from cutting itself off from the cosmos, knows it is involved therein. It is possible that the epistemology of Descartes ('idea-pictures') might lead to a 'bivalent knowledge'. It seems that this accusation will not hold against dialectical materialism. However, one is surprised to see so little Soviet insistence on the intentionality of knowing. It is evident how central this notion is for a realist epistemology's explanation of the nature of knowing and of the categories of the mind. Husserl himself used it with success. This notion of intentionality is to be found in Soviet thought but it has not so far received the attention due it.[54]

There is another lacuna. No theory of abstraction can be without the elaboration of a principle of individuation. To abstract is to disengage the universal from the singular and one has to explain what makes the singular possible. Aristotle sees in abstraction the seizing of a form separated from the individuating conditions which are the work of matter. Soviet Marxism cannot follow this path since, for it, matter is the totality of the real. Something else has to be found. One can justifiably reproach empiricism with its effort to reduce existence to that which one can touch

[51] "Und wenn ein Abbild entstanden ist, wer entscheidet dann, ob dieses richtig ist (denn es kann offenbar doch auch falsche Abbilder geben), wer vergleicht Kopie und Original? Beim Spiegelbild kann das nur ein Beobachter, der unabhängig von beiden sein muss" (Moog, p. 82).

[52] Sartre, vol. I, p. 30, note 1.

[53] Merleau-Ponty, p. 91.

[54] Soviet philosophers are too insistent on one element of knowledge (the reflection-copy) and not insistent enough on another which not less essential, intentionality.

or see, because an abstract datum, even though it cannot be seen, is nevertheless real.[55] But, if the senses perceive a real element, and if the mind also seizes a real element (which is not the *sensatum*), is one not forced to conclude that the world is composed of two ontologically distinct principles? Soviet studies leave this question unanswered. And the theory of abstraction limps. Which leads some critics to say that such a theory is not completely free of empiricism.[56] But this is a lack which Soviet thought could cover since it maintains that abstraction is a generalisation, the object of which is to render intelligible that which is not yet such in sensation. It is not here that we will take issue with Marxist orthodoxy.

The fundamental categories of thought, like causality, finality, essence, etc., are objective concepts which are qualitatively distinct from images. There remains one more important question: What is the character of the necessity of all our notions? Is it a logical necessity which is based on an immediate grasp of the datum; or, on the contrary, a historical necessity, bound up with repetition of the experience? This is the problem of the validity of our knowledge of the world.

Contemporary Soviet philosophers here offer a theory which is not only surprising but also in opposition to their realist trend. They first call to mind that man is the historical product of a long evolutionary process. And then the famous principle: *nihil in intellectu quod non prius fuerit in sensu*, a rejection of any categorial a-priorism. All our notions have a sense-origin. "Thus, all our concepts, axioms, notions and other fundamental principles on which all scientific demonstrations are based are ultimately drawn from experience, from practice, from social practice and from the social needs of individuals."[57] And the conclusion is that the value and necessity of all these notions has no other foundation but the multiplicity of experiences over the entirety of time. Andreev, who has a lot to say on this subject, writes: "This dependence between concepts or categories and the real world is always there and is the law of development of all scientific theory. These abstractions are self-evident because human practice throughout history has reflected in human thought the regularity of the objective world in the form of logical figures, of laws, etc. ... Re-

[55] Rosenthal, p. 331.
[56] de Vries, p. 50.
[57] Andreev [1], p. 199.

peated millions of times these notions become fixed and self-evident."[58] Another author notes that the bond between things and consciousness is gradually established through human practice.[59] Thus, the Soviet argumentation contains two theses. First, against all forms of scepticism, the affirmation of the necessary and objective character of the laws of nature and, against Hume, of the ontological value of the principle of causality. But it is immediately added that the certitude of my knowledge (of this objective necessity) of the world is completely based on habit – not an individual, psychological habit but a historical habit, the ancestral experience. Soviet thought thus remains faithful to Lenin: "'The syllogism of action.' For Hegel, *action*, practice is a logical 'syllogism', a logical figure. This is true! Of course, not in the sense that the other being of the logical figure is the practice of man [= absolute idealism], but vice versa, in the sense that human practice repeated billions of times is impressed in the consciousness like logical figures. These figures become as solid as prejudices and gain an axiomatic character precisely (and solely) in function of this innumerable repetition."[60]

"Precisely and solely" becausesLenin knows very well what he wants to say. There is a tendency to give a *pia interpretatio* so that dialectical materialism would say: previous generations transmit cultural materials (axioms, categories) which facilitate personal development: but the individual could very well *hic et nunc* perceive the validity of such axioms or categories without reference to the experience of others. Very deliberately, contemporary Soviet philosophers eliminate this interpretation since it would ruin one of the essential theses of Marxism-Leninism, i.e., "the logical reduces to the historical".[61] Soviet philosophy must choose: either recognise the primacy of the logical over the historical, or reduce the logical to the historical. If it chooses the historical and if, as is maintained, the necessity of all our knowledge depends on 'repetition', then Soviet philosophy falls into what it itself calls 'the swamp of empiricism'. The psychological empiricism of Hume gives way to a historical empiricism. Why fight Hume by saying that natural causality is ontologically

[58] *Ibid.*, p. 200.
[59] Savinov, p. 90.
[60] Lenin [4], p. 178.
[61] "The coincidence [*sovpadenie*] of the 'logical' with the historical is based on the materialist theory of reflection and constitutes the point of departure of the logic of Marxism-Leninism" (Il'enkov [3], p. 343.

founded if one holds at the same time that this judgement has no intrinsic value? One invalidates the other.[62]

What is more, Soviet philosophy takes too cavalier an attitude in condemning the pretensions of logical thought. The argument is as follows: either *a priori*, or experience. The validity and necessity of the axioms and categories depends either on their *a priori* character or on experience. *A priori* is that which is drawn from the mind without any reference to the real world; it conforms to some so-called structure of thought prior to any experience at all. Such an *a priori* is Kantian idealism. There remains, therefore, experience. But, experience provides validity only through repetition.

But this dichotomy oversimplifies the problem of the abstraction and the logical and necessary character of thought, of its axioms and its categories. In effect, it seems that there is no notion or category in the mind which does not come from the senses. But through abstraction the mind perceives the intelligibility of experiential data and does so immediately. Therefore, when we say that a principle is immediately evident, that it is known through our intelligence from the mere comprehension of the terms, this means that the principle is known without 'middle term' but not without the help of the senses. There is a 'dialectical' bond between logic and experience but this does not reduce the self-evidence of logical thought to experience – even historical.

If Soviet thought followed this path it would have to give up the reduction of the logical to the historical. But, then, realist thought would take it where it does not want to go. If the logical transcends the empirical, this is because the concept abstracts from space and time, categories which are intrinsically bound up with the *physis*. The categories of thought would then be transcendental. This would force Soviet orthodoxy to revise its ideas on logic. The περι ψυχης of Aristotle would show how uncertain and insufficient are the explanations of the 'psychic fact' which are found in Soviet texts. One would have to ask if a μετα τα φυσικα would not be necessary to complete the structure. Contemporary Soviet philosophers, therefore, prefer saying that any 'realism' which is not strictly 'materialist' is an 'idealism' even if this affirmation implies 'empiricism'.

[62] de Vries, p. 109.

CHAPTER IV

THE DIALECTIC OF THE CATEGORIES

Through the mediation of the categories the objective being of the cosmos is reflected in the thought of man. Each particular category expresses an aspect of the datum. This fragmentation is legitimate because the various traits and characteristics abstracted by the mind have in reality a relative independence, even though the real forms a unity. The precise error of metaphysical thought is to conceive the world as a series of juxtaposed phenomena without organic bonds. Thus, the monads which Leibniz described as 'without door or window' were closed in on themselves. This ontological isolation accompanied an epistemological isolation. In defining its object each category defined itself. There was no relation or bond between the categories. Aristotle refused any "μετάβασις εἰς ἄλλο γένος".[1] Hegel was the first to undertake a dialectification of the categories, and this was a great step forward. "In Lenin's eyes Hegel's great merit is that through the mysticism and pages full of pedantry there is a fundamental idea – Lenin calls it an idea of genius – which permeates his logic: the idea of a universal connection of everything with everything and the reflection thereof in logical concepts."[2] Contemporary Soviet philosophers are decided to employ the great Hegelian intuition on dialectical character of the categories. But one can already foresee some problems. We noted in the previous chapter that Soviet epistemology refused a critical point of view and prefers realism. Now they want to go along with Hegel saying that the 'rational kernel' of the Hegelian method is precisely the dialectical character of the categories. One can immediately note the split of Soviet philosophers into two groups: those who think they can 'dialectify the categories' through a materialist transposition of the Hegelian themes; and those who purely and simply contest the conceivability of such a transposition. If the latter continue to speak of a dialectic of categories, this is because they give to the word 'dialectic' a meaning which it could have in a realist epistemology.

[1] Aristotle [2], III, I, 200 b34; [1] 9, 1065 b8; [3] 1054 b29, 1057 a26.
[2] Rosenthal, pp. 435–436.

A. DIALECTIFICATION OF THE CATEGORIES

A dialectic of categories: but what is the meaning of 'dialectic' when contemporary Soviet philosophers apply it in the field of knowledge? It is a notion so rich and so variegated that one does not know where to begin. But, the basic tendency at present is to connect the problem of the dialectic of categories with the 'concrete concept'.

1. *The Concrete Concept*

Contemporary Soviet philosophers are aware that even in Hegel's system the concrete concept was central to dialectical thought. Having denounced the idealism of Hegel, Ovsjannikov writes: "But Hegel's effort to consider concepts according to content is of great interest for dialectical logic."[3] For Hegel, the concrete concept contains the effort of a critical philosophy to do without the Aristotelian notion of abstraction. It is, therefore, an effort to conceive the synthesis of the universal and the particular – a synthesis which is precisely the concrete concept. In taking this position Soviet philosophy recognizes the distinction between concepts which are universal, particular and singular. But these notions have peculiar meanings since they are connected with the problem of abstraction as we have described it in the preceding chapter.[4] The universal concept is an abstract concept of singular existents. The particular concept is a concept of class or species understood in the meaning that biologists give to these terms. Thus, this birch is a particular concept because it abstracts from other singular birches but does not have the universality of the concept tree. Hegel will not help us understand what Soviet orthodoxy means by concrete concept. The Soviet philosophers themselves refer to Marx who, in his *Contribution to the Critique of Political Economy*, thought there were two possible methods of studying any question: either begin with the concrete and progress through analysis to delimitations of ever greater precision. Thus, "... one reaches concepts which are more and more simple; from the figurative one proceeds to

[3] Ovsjannikov, p. 135.

[4] Spaier saw in concrete thought a thought which would draw all its meaning from images. Precisely because of its theory of abstraction Soviet philosophy does not reduce – as Spaier has the tendency to do – the intelligibility of thought to that contained in the images alone.

ever finer abstractions until one reaches the simplest determinations."[5] The other method – that which Marx considered to be the sole valid one – is called the method of ascent from the abstract to the concrete. Here the mind passes from the most elementary abstractions to ever more concrete determinations, thus reproducing the conception of reality in its fullness and totality. The final result is the concrete concept which Marx defines as follows: "The concrete is concrete because it is the synthesis of various determinations and, therefore, the union of diversity. This is why it is the process of synthesis, the result, and not the point of departure, even though it is the actual point of departure and further, the point of departure of the immediate intuition and of the representation."[6]

Even the Soviet philosophers have a hard time interpreting this text. In an article 'The Dialectic of the Abstract and the Concrete in Knowledge' Il'enkov concludes that for Marx the abstract is the point of departure of knowledge and, therefore, any attempt to move from the concrete to the abstract is anti-Marxist.[7]

The majority of contemporary Soviet philosophers give another interpretation of this text. They admit that in *Capital* Marx follows Il'enkov's idea. But, they add, Marx had already accomplished a preliminary investigation of the subject-matter, not only ordering it but also proceeding from the concrete to the abstract.[8] They conclude that the concrete concept is had only after a double process: from the concrete sensible to the abstract intelligible; and, secondly, from the abstract intelligible to the concrete intelligible. The dialectical process, therefore, is found between two 'concretes' but which are not on the same plane. Rozental' describes the method as follows: "... it is the movement of thought which goes from the concrete in perception to the abstract and from the abstract back to the concrete but which is on a new and superior level."[9] In *Osnovy* we find: "It is not at all a return to the sensible concrete but the reproduction of the concrete in thought – the highest form of knowledge."[10] Concrete thought is thus the end-result of thought. One thereby avoids the dangers of abstraction without having to sacrifice

[5] Marx [4], p. 164.
[6] *Ibid.*, p. 165.
[7] Il'enkov [1], p. 52.
[8] Andreev [1], p. 211.
[9] Rosenthal, pp. 343–344.
[10] *Osnovy*, p. 308.

its advantages. Concrete thought reflects all the aspects of the real – both identity and diversity: it is the grasp of unity in diversity and diversity in unity because it makes known the object in all its determinations, relations and peculiarities, as a complete and organised whole.[11] But a concept cannot instantly comprehend all the aspects of a concrete material object: knowledge, then, is a process of penetrating the given. This same notion is to be found in the categories. And since the concrete material object is always related to other objects, interdependence is one of the properties of the categories. "There are two sides to the process of the formation of concepts: a continuous effort to grasp an aspect of the object ever more profoundly; and the same effort to grasp the totality of the object."[12] Fluidity and correlation are, thus, the basic characteristics of the dialectic of categories, whence flows their concreteness.

2. *'Fluidity' of the Categories*

There are some contemporary Soviet philosophers who are opposed in principle to the study of the categories. For them, this would be a return to scholasticism and fixism.[13] This is an unjustified fear since Marxist thought uses categories which have nothing in common with those of metaphysical thought. It is a commonplace in the Soviet Union to affirm that pre-Marxist thought was a fixed thought. All philosophers previous to Marx used immutable categories which expressed a thought caught in the vice of identity. This is what Xasxačix writes: "For metaphysical thought all concepts and especially the laws of thought are absolute, fixed, immutable, frozen."[14] The Soviets reject this fixedness of human thought; but it is hard to find a philosophy which does not. They want 'fluid' and 'mobile' categories. Lenin noted that concepts "... should be tooled, worked, flexible, mobile, relative, inter-related, and united in opposition in order to comprehend the universe".[15] But the metaphysician should not take fright: all of the metaphors (*uprugnost'*, *elastičnost'* = elasticity; *gibkost'* = flexibility) are less revolutionary than it might seem at first glance. Their intellectual reference contains nothing more than what was

[11] Keburija, pp. 28–29. Cf. also Rozental' [3], pp. 297–301.
[12] Kopnin, p. 343.
[13] Gak, p. 44.
[14] Xasxačix, p. 157.
[15] Lenin [4], p. 121.

already taught by the Platonic 'dichotomy' and by Aristotle's *venatio definitionum*. The new idea behind these metaphors is simply that human knowledge progresses in the grasp of its object, which it never succeeds in completely knowing. The progress is that of humanity as well as of each individual. Rozental' writes: "Primitive man was poor in abstractions and generalisations."[16] What difference there is – notes *Osnovy* – between our knowledge of the atom and that of the ancient physiocrats: "... The ancient concepts have become deeper, more precise and raised to a higher level of abstraction."[17] Like all philosophers the Soviets point out the importance of induction and deduction, of analysis and synthesis in the formation of our categories. But here they only repeat what ancient logic text-books said long ago.

This mobility and fluidity of our concepts has its limits. Gorsky distinguishes two groups of categories: the first he calls notions, and they have the free and changing structure of a function; the others, called 'abstract concepts' have no change in their structure. For example, beauty, patriotism, etc.[18] To which one could reply that even abstract concepts like beauty and patriotism are not less changeable than the other categories. Soviet writers on morality continue to show that patriotism in the U.S.S.R. has in common with bourgeois patriotism only the word: the same is true of beauty. Even though this fluidity as penetration of an object is but the most superficial element of the dialectic of categorial knowledge, this effort at limiting the fluidity of categories is worth noting.

3. *Correlation of the Categories*

The world is not made up of isolated phenomena: it is a cosmos, i.e., a union of interrelated and hierarchically distributed realities.[19] In order that thought be a faithful reflection of this datum, it is necessary that the categories be inter-related. Lenin insisted on this in his *Philosophic*

[16] Rosenthal, p. 441.
[17] *Osnovy*, p. 319.
[18] Gorski, p. 400.
[19] "In *Dialectic of Nature* Engels teaches that the materialist dialectic is the science of general bonds. Dialectical materialism holds that the world is not an accidental and arbitrary agglomeration of objects, phenomena and processes without mutual connections and isolated one from the other, but that it forms an organic whole where each object and each phenomenon has multiple connections with other objects and phenomena: this is reciprocal conditioning and interdependence" (Andreev [1], p. 65).

Notebooks: "In general, the dialectic is the 'pure movement of thought in concepts' (i.e., talking without the mysticism of idealism: human concepts are not immobile but in eternal movement, pass into each other, and spread through each other. Otherwise, they are not the reflection of living life. The analysis of concepts, their study, 'the art of working with them' (Engels) always requires the study of the *movement* of concepts, of their connections, of their mutual penetration)."[20] But in view of the "talking without the mysticism of idealism" how is one to understand the correlation of concepts, their connections, the passage of one category into another and the contradictions between categories? Here contemporary Soviet philosophers are in basic disagreement.

A first group is made up of philosophers who want 'to integrate' Hegel's point of view. Hegel's importance, notes Ojzerman, is greater than we normally think. Not only does he recognize the objectivity of internal contradictions and the general character of change and development but "he has understood that the objective dialectic must be expressed in the logic of concepts, i.e., he has understood that one must construct a dialectical logic".[21] These 'Hegelians' are vaguely aware that one is not completely free of empiricism and of positivism if one is satisfied with a juxtaposition of the categories; i.e., if each category has only an 'indifferent relation' with the others. They, therefore, are of the opinion that dialectical materialism has to accept Hegel's magnificent intuition. With Hegel, they speak of correlation, of immanent connection, of the passage of one category into another and of the contradiction between categories.

In the first place, they eliminate a false idea: that the concrete concept is a mechanical sum, a simple juxtaposition. While formal logic is satisfied with enumerating the forms of the movement of thought and with putting them one beside the other without any connection, dialectical logic, on the contrary, "deduces these forms one from the other, subordinates one to the other rather than coordinating them, and develops the superior forms from the inferior".[22]

There are two aspects to the correlation of the categories: the 'coincidence' and the 'polarity' of the categories. Coincidence (*sovpadenie*) is

[20] Lenin [4], p. 210. See, also, p. 184 on the mobility of concepts, p. 212 on the dialectic of concepts, p. 91 on the elasticity which extends to the identity of contraries.
[21] Oisermann (Ojzerman), p. 282.
[22] Engels [2], p. 225.

the property of concepts which are distinct but complementary. If, for example, we take the categories of law, essence and necessity, that which makes a thing necessary is its essence and its law: similarly, it is its internal essence that gives a thing its internal regularity, its law.[23]

But the most important element and that on which contemporary Soviet philosophers insist is 'polarity' (*poljarnost'*). The categories come in pairs. "The categories of general and particular, of essence and phenomenon, of content and form, of necessity and chance, etc. ... all form oppositions of terms in pairs, inseparable from one another."[24] This connection is not arbitrary but reflects in thought the unity of the real. Contemporary Soviet philosophers, however, do not specify the type of connection which relates these pairs. They speak of interdependence and contradiction as well as of contrariness. For Tugarinov, these pairs are contradictories, but he immediately adds: "However, all of these categories are not contradictories. The categories of chance and of possibility are merely different but not contradictory."[25] Other philosophers connect up the possible with the real and chance with necessity.[26] Rozental' gives these pairs a new meaning: "The polarity and connection of the categories about which we have spoken is the expression of different or contrary elements..."[27] Two lines later he adds: "Each member of a pair of categories has with the other a relation (or connection) of contradiction."[28] When relation, contradiction, difference and contrariness all mean the same, it is obvious that the conceptual tools need sharpening.

If the categories were only related in pairs, metaphysical isolationism would not yet be defeated. This is why each pair of categories and each category is immediately or mediately related to the other categories, forming a multivalent system. Each category has its own content and is also in relation with other categories; it has a context. And it is this context which eliminates the possibility of 'byzantinism' and 'talmudism'.[29] This is why the pairs of categories are not rigidly established. Sometimes the possible is linked up with the real; other times one finds it in con-

[23] Tugarinov, p. 12.
[24] Gak, pp. 48–49.
[25] Tugarinov, p. 12.
[26] Gak, pp. 48–49.
[27] Rozental' [2], p. 46.
[28] *Ibid.*, p. 46.
[29] Tugarinov, p. 13.

junction with chance or necessity. The categories are mutually explanatory. If one wants to understand the links between necessity and liberty, they must be connected with two others, possibility and reality. The transition from possibility to reality shows that man's creative activity – his liberty – has an ontological base. New light is thus shed on liberty.[30] Tugarinov offers another example. Space and time are explained through the category of movement; but movement itself takes place in space and time. Thus, each category contributes to explaining all the others.[31] Knowledge which began as grasp of a part becomes grasp of the whole. "Each logical category reflects a determined aspect of the whole. The fact that all the parts are inter-related and cannot exist one without the other must be reflected in the *system* of logical concepts."[32]

That each part be in relation with the other parts is not enough to make an organic whole. A system of categories is possible only if one can deduce the many categories one from the other following a necessary connection.

The correlation of the categories supposes that the different attributes or qualities of being are mutually related. Aristotle himself taught that the ten main 'modes' of being formed some sort of unity since the accidents are analogical to substance. But because this unity is analogical it supposes the incommunicability of the categories. "The genera of being are irreducible one to the other; neither are they contained in one", says Aristotle.[33] This is the semi-empiricist attitude of a mind which finds and classifies the datum, of a mind which "... isolates or juxtaposes the general determinations. It cannot grasp their movement, the passage of one into the other."[34] Aristotle discovers quantity in being and quality in being, but considers it impossible to pass from quantity to quality.

Following Hegel our contemporary Soviet philosophers affirm that the categories are necessarily connected with each other. Rozental' cites the passage where Hegel criticises ancient formal logic because it drew the order of concepts from purely extrinsic considerations: "As concerns the necessary connection it limits itself to the enumeration of the titles and

[30] Gak, p. 56.
[31] Tugarinov, p. 18.
[32] Rosenthal, p. 470.
[33] Hyppolite [1], p. 198.
[34] *Ibid.*, p. 200.

sub-titles and the transition is marked simply by 'Chapter II' or by the expression, 'Now we turn to consider...'."[35] Rozental' adds that logic leaped forward when Hegel replaced this empirical structure with an order of succession in the development of concepts where the decisive role was played by the internal, immanent connection.[36] Without a doubt the logic of Hegel is rife with mysticism but dialectical materialism is obliged to treasure this idea of immanent connection of the categories.

Accepted, too, is the other discovery of the *Science of Logic*, the passage of one category into another. Tugarinov writes: "Transitions and births of categories which are both distinct and contradictory are characteristics common to all the categories of Marxist philosophy."[37] The idea is very clear. This transition (*vzaimoperexod*) is much more than interaction (*vzaimodejstvie*) or interdependence (*vzaimozavizimost'*): one category really becomes another. "The categories themselves as well as their mutual bonds should not be conceived metaphysically, i.e., as realities which are fixed and given once and for all. ... Each category disappears and passes into its contrary; others appear. Thus, under certain conditions, chance changes into necessity and vice versa."[38] Since there is perpetual change in nature, thought could not be a real reflection of the real if this ontological change were not reflected in thought. The objective laws of the real are also the laws of thought.

The correlation and continual transformations of phenomena are not unexplained raw data. The explanation given by dialectical materialism is based on the internal contradictions of being, which we will take up later.

Are the categories which reflect the real not themselves contradictory? And would this contradictoriness not make thought incoherent? The 'Hegelians' maintain that a perfect dialectification of knowledge implies such a contradiction inside of the categorial world. The authority quoted is Lenin who 'while reading Hegel' jotted down some thoughts on the dialectic. One of them is: "Universal flexibility in all directions of concepts, a flexibility which goes as far as identity of contraries – this is the essential."[39] Quoting this passage, Andreev affirms that Lenin wants to

[35] Hegel [3], vol. I, p. 37 (quoted by Rosenthal, p. 436).
[36] Rosenthal, p. 436.
[37] Tugarinov, p. 12.
[38] Andreev [2], p. 225.
[39] Lenin [4], p. 91.

say that there are real contradictions in thought. To think dialectically is to think in contradictory terms. "In the process of thought are born contradictions which are the reflection of the objective contradictions which are inherent in the world presented to us."[40] Rozental' has the same idea: "The fact that in reality objects and phenomena constantly develop, change and are transformed in a complex, dialectical way has to be expressed in the reciprocal conversions and contradictions of the concepts and logical categories."[41] Since ancient logic excluded contradiction, a new logic is needed, the object of which will no longer be the 'use of terms' but the process of the movement of concepts. And this new, dialectical, logic has laws other than those of formal logic. Its basic law is that of the identity and coincidence of contradictions.[42] Since formal logic is not applicable to the real, it is reasonable to conclude that the principle of non-contradiction does not guide our knowledge of the real. This strange position was defended by Il'enkov during the famous discussion on 'The Question of Dialectical Contradictions in the Light of Contemporary Science and of Practice', held in Moscow in April, 1958.[43] He sets aside as insufficient the idea that these contradictions could be the result of lack of attention on the part of the knowing subject. The contradiction which is found in thought is not that which one finds between an inadequate concept and the reality it is supposed to represent. The metaphysicians themselves recognize this.[44] The contradiction of a real dialectician is an opposition between contradictory notions. "If in the course of our study of the real a contradiction appears this is – despite appearances – not at all a logical contradiction, but a logically true formulation of reality."[45] Just as the real would be dead and motionless if there were no internal contradictions in being, so without subjective contradictions thought would not move. And Il'enkov goes as far as to say that the contradiction found in ideas is a 'springboard' for knowledge.[46]

[40] Andreev [1], p. 72.
[41] Rosenthal, p. 462.
[42] Il'enkov [2], p. 72.
[43] The complete text of the proceedings has not been published. *Voprosy filosofii* did publish a long report (*VF*, 1958,12, 163–173), which has been translated into German by Lobkowicz, pp. 10–37.
[44] *VF*, 1958,12, 168.
[45] Il'enkov [2], p. 72. The same thesis is defended by D. V. Pletnev, pp. 82–92.
[46] *VF*, 1958,12, 168.

It is contradiction between ideas – as principle of the self-movement of concepts – which makes possible a complete dialectification of knowledge where the different thought categories form a system. One finds various efforts at the elaboration of a table of categories.

4. *Tables of Categories*

This project dates from Lenin who, in his *Philosophic Notebooks*, expressed the desire that one develop a system of categories intrinsically related one to the other: "It is necessary to *deduce* the categories (and not to take them arbitrarily or mechanically) (not 'in discussion', not 'in affirmation', but in *demonstration*) beginning with the simplest and most fundamental (being, nothing, becoming (*das Werden*) to name only those). ..."[47] This text implies that the order of the categories of dialectical materialism would be the same which Hegel held to. But in another passage Lenin opposes to Hegel's *Science of Logic* the logic of *Capital* of Marx.[48] In his article 'Categories of the Dialectic', Gak says: "In its exposition of the categories it is understandable that the materialist dialectic cannot follow the order used by Hegel."[49] As concerns the systematization to be found in *Science of Logic*, the Soviets take a rather hesitant stand but are convinced that the task is worth trying. "The problem of a system of categories, of the place of each category within the system, is an essential problem but one which we have not yet sufficiently studied."[50] Contemporary Soviet philosophers are conscious of the difficulties involved in such an undertaking. While metaphysical thought was able to establish definitive tables of categories, it is obvious that dialectical reason cannot achieve absolute systematisation. "It is clear that knowledge which is the reflection of a perpetually developing world can never be considered complete. This is why Marxism rejects any system which pretends to be absolutely complete."[51] But, as we noticed when talking about the fluidity of categories, dialectical thought does not reject a certain permanence of ideas. Even the most 'Hegelian' of contemporary Soviet philosophers admits: "Since they are extensive and general it is

[47] Lenin [4], p. 77.
[48] *Ibid.*, p. 201.
[49] Gak, p. 47.
[50] Rozental' [2], p. 48.
[51] Rosenthal, p. 473.

obvious that logical concepts are not subject to relatively rapid changes as are those of physics or political economy."[52] This relative stability justifies the undertaking. While Aristotle and Kant and even Hegel shut themselves up in finite systems, dialectical materialism does not want to forget that knowledge is "a multivalent and vital knowing with indefinitely increasing facets" and that, consequently, a system of categories is itself involved in the process of fruitful development and has to take into account everything new which arises.

With these limits in mind the Soviet philosophers go to work solving the basic problem, that of the position of the categories. They have understood that in a cognitive systematisation the ordering of the categories is more restrictive than is the content of each isolated category.[53] This is why Rozental' points out that "the problem of the order in the exposition of categories is not just of scientific but also of methodological interest".[54] The main task is to discover the regulatory principle for the establishment of a categorial hierarchy. We have already noted that Soviet thought is determined to reduce the logical to the historical. It is not surprising, therefore, to find that human practice is invoked in the construction of the table of categories. The historical order goes from the accidental to the essential, from the simple to the complex, from the lower to the higher.[55] Rozental' faithfully repeats the classical thesis on the parallelism between the historical and the logical: "The thesis of the unity of the laws of historical and logical development and of the development of thought to a great extent predetermines the solution of an important question of dialectical logic, that of the relations between categories, of their order and respective positions in the logical system."[56] It has become clear how anxious Marxist orthodoxy is to retain the comfort of an evolutionism which holds that the chronological verifies and justifies the logical. This seems valid as long as one just repeats it. But it becomes

[52] *Ibid.*, p. 474.

[53] "But the main difficulty of any science is not becoming aware of the role of concepts in the knowing of the objective world, but creating and clarifying a system of concepts, of categories and of laws which are intimately connected, derived from one another, and which reflect in their reciprocal bonds and conversions the real relations of the phenomena being studied" (Rosenthal, pp. 432–433).

[54] Rozental' [2], p. 50.

[55] *Ibid.*, p. 48.

[56] Rosenthal, p. 448.

less so once one sets about the construction of tables of categories. It is rather amusing to note that these same philosophers who accuse Aristotle and Kant of arbitrary systematisations are no less arbitrary when they themselves start to systematize. A few examples will make this clear.

Rozental' suggests the following order: Phenomenon and essence. The category of phenomenon comes first because it is the most superficial. Then comes essence. But to reveal essence one must use the notion of causality. Whence, cause and effect. Causality shows the necessary or accidental character of nature. Necessity is based on the internal law of being. Finally, every being has a content and a form. Change is explained by the two categories of 'possible and necessary'. These are the ontological categories in their order. Rozental' turns to the epistemological categories, the categories of the subjective dialectic .They are: the abstract and the concrete, the logical and the historical, analysis and synthesis, induction and deduction.[57]

Obviously following Hegel's *Kreis der Kreisen*, Bibler in his *System of the Categories of Dialectical Logic*[58] arranges the categories in four groups, as follows:

1st group: the material world, space, time, movement; reflection;

2nd group: interaction, cause and effect, property, quality, condition;

3rd group: essence, existence, substance, phenomenon, the necessary and the contingent, content and form;

4th group: the possible and the real.

In *On the 'Philosophic Notebooks' of V.I. Lenin*, the subordination of the categories is as follows: Essence–phenomenon, cause–effect, law–necessity–chance, content–form, possibility–reality, liberty–necessity.[59] A different classification is found in *Problems of Dialectical Materialism*: Finite–infinite, cause–effect, necessity–chance, singular–general, possibility–reality, form–content, subject–object, logical–historical, induction–deduction.[60]

The most original effort, however, is that of professor Tugarinov. He offers a 'reasoned' return to Hegel. The professor from Leningrad main-

[57] Rozental' [2], p. 50.

[58] Bibler, V. S.: *O sisteme kategorii dialektičeskoj logiki*, Stalinabad 1958. Even more Hegelian, E. P. Sitkovskij puts all the cognitive notions under the three categories of being, essence and concept (Sitkovskij, pp. 77–90).

[59] *O "filosofskix tetradjax" V. I. Lenina*, pp. 132–202.

[60] *Voprosy dialektičeskogo materializma*, Moskva 1960.

tains that Lenin accepted the construction of Hegelian logic. One must begin with being in general, go on to properties and finally reach the relations of phenomena, in which the essence of the real is explicated the most profoundly and concretely.[61] This gives the following three main groups:

1. *The categories of substance*: Nature–being–matter–phenomenon;

2. *The categories of the attribute*: Movement–change–development; space–time; objective–subjective; consciousness and thought.

3. *The categories of relation* which form an extremely dense and complex system: Quality–quantity–leap. Foundation–essence–phenomenon. Content–form. Singular–particular–general. Identity–unity–difference–opposition–contradiction–combat. Causality–necessity–contingence–possibility–appearance–reality. Necessity–finality–goal–liberty. Law–regularity (*zakonomernost'*). Objective–relative–absolute truth.

A real subordination exists between these three groups (substance, attribute, and relation). The categories of substance express the most fundamental level of the real. Substantial beings are prior to properties and relations. Even though substance does not exist concretely in its properties and relations, it is the case that substance is the stable principle and permanent bearer of its attributes and relations. Similarly, the properties of substances are more fundamental than the categories of relation since relations presuppose the existence of substances and properties. Finally, Tugarinov finds a subordination of categories within each of the three groups. If we take, for example, the categories of the attribute, the first is movement. Then comes change (or mutation). Every movement is a change, but not vice versa. The category of development adds to the category of mutation the idea of a transition from simple to complex, from inferior to superior, from old to new. Space and time are subordinated to movement which is the existential condition of their actualisation. And so on.

These few examples show the variety which exists not only as to the number of categories – which would be of minor import – but even as to the order used. The historical order moved Rozental' to put first the most impoverished category, phenomenon. The same principle moved professor Tugarinov to start with the most profound category, substance. Despite

[61] Tugarinov, p. 15.

the differences, all these contemporary Soviet philosophers are trying to develop systems of categories, based on the correlation, deduction and subordination of the categories. This is why, even though their results differ from those of Hegel, they are to be considered 'Hegelian'. That they themselves are conscious of this can be seen from professor Tugarinov's words: "But it [this table] is in no way opposed to the basic intent of the Hegelian schema and in form and content it is in accord with materialist doctrine."[62] This is not the opinion of all contemporary Soviet philosophers. They admit that the effort to dialectify the categories is Hegelian; but they would deny that it can be called Marxist.

B. REFUSAL OF A DIALECTIFICATION OF THE CATEGORIES

There is, in fact, a group of philosophers in the Soviet Union who do not accept the theory we have outlined. Their leader is undoubtedly professor Bakradze of the University of Tiflis. His opposition to this attempt to dialectify the categories and to 'Hegelianise' dialectical materialism by accepting Hegel's most Hegelian notions is not due to vulgar anti-Hegelianism. As a matter of fact he is the author of a study on Hegel which is superior to other Soviet works on the subject.[63] Precisely because he knows Hegel so well, he sees that any *rapprochement* between Marxist philosophy and *Science of Logic* is necessarily superficial. As a topnotch logician Bakradze has risked his reputation and position over a period of ten years in efforts to introduce Aristotle's logic. He knows too well the total opposition between realist epistemology and Hegelian theory of knowledge to be satisfied with a hybrid. Professor Bakradze and others of his opinion deny the possibility of a system of categories based on immanent connection of categories, on transition from one category to another, on subordination or contradiction between different categories. There can be no system because the noetic level is distinct from the ontological level. Which means, according to Bakradze, that the logical and ontological orders cannot be identical. This line of thought leads Bakradze to a re-examination of the famous Marxist thesis on the unity of logic, dialectical materialism and theory of knowledge, an examination which is based on a deeper understanding of the Hegelian dialectic. Bakradze

[62] *Ibid.*, p. 19.
[63] Bakradze [2].

asks himself if system and method are as easily separable in Hegel as the Marxist tradition has claimed. This will determine whether one can still talk about a dialectic of knowledge.

1. *Transition from One Category to Another*

It is in the sixth chapter – especially in the fifth part, entitled 'Logic and Ontology' – that professor Bakradze examines the problem of the correlation of the categories. This study has not only a philosophic but a historical interest for the study of contemporary Soviet philosophy. On the one hand, he has against him a theory which is generally accepted, with all that this means for a philosopher who belongs to a philosophical school where, more than anywhere else, accepted and consecrated ideas are untouchable. On the other hand – and this is more serious – his position seems to directly contradict texts of Lenin himself. And so Bakradze has to do what many philosophers have done before him: 'interpret' his sources by trying to find other texts by the same author, which contradict the text which it bothering him. We see here that contemporary Soviet philosophy is not as monolithic as it is generally held to be. Since the death of Stalin there is some freedom of research although, no more than a Christian thinker can conclude to the non-existence of God, there is no chance of seeing a Soviet philosopher come to a spiritualist conclusion. While philosophers of the same school play with the same ball, some position it better than others and this game could conceivably lead to a desire to substitute one ball for another.

Lenin wrote: "transition of concepts one into the other"; "identity of oppositions between concepts"; "immanent relations between categories".[64] We have seen how these texts are used by the partisans of a dialectification of knowledge. Professor Bakradze offers another interpretation, which is completely different since at the end of his analysis he concludes that there is no transition of one category into another, nor contradiction or immanent connection between categories. He thus refuses the idea of a system of categories.

He begins with the transition of one category into another. Agreeing with Lenin, Bakradze admits that a dialectical philosophy cannot be happy with the vulgar and metaphysical affirmation of difference and

[64] Lenin [4], p. 163.

identity. Any dialectical thought has to follow Hegel's general idea on the transition of the categories. Does this mean what Hegel meant by it? To prove that it does not Bakradze quotes a passage where Lenin criticises Hegel. "Further on, the transition from quantity to quality is so obscure in this theoretical and abstract exposé that one does not understand a thing."[65] And Bakradze adds: "He [Lenin] has the same thing to say about the transition of being to essence; and the transition of cause to effect is mystical and completely pedantic."[66] It is mystery and pedantry not just because for Hegel the concept determines the real. In this case, it would be enough to say that being is prior to thought and the whole thing would become Marxist – which is the position of Rozental'. This is not enough. The demystification of Hegel requires that one purely and simply cease talking about the mutation of categories in the way that Hegel did. This transition is – according to Bakradze – a metaphorical way of speaking. "This is why these notions of 'transition' are obscure and unintelligible; this is why metaphors often replace the notion of 'transition'; it's a simple play on words."[67] So, if the Marxist philosopher does not want to get caught up in words, he has to openly recognise that the mutation of categories is nonsense. "If one wants to avoid figurative language in order to speak with rigor and precision, one has to say that as a matter of fact the categories do not and cannot pass over into each other."[68] In fact, all this expression means is that there is a progress in the penetration of the given as one can see from an example. We take the categories of quantity and quality which are so fundamental to dialectical materialism. One says that a quantitative change in the real produces a qualitative change and vice versa. There must be a change on the level of concepts, corresponding to this ontological change. "But", writes Bakradze, "one should not falsely conclude that the category of quality [i.e., the concept of quality] passes over into the concepts of quantity. Quality is a basic and precise determination of things, of phenomena and of their processes; one can analyse the content of this concept and explicate it at will but it will not become the concept of quantity."[69]

[65] *Ibid.*, p. 97.
[66] Bakradze [2], p. 433.
[67] *Ibid.*, p. 439.
[68] *Ibid.*, p. 438
[69] *Ibid.*, p. 439.

A concept brings to the mind a series of intelligible traits. Though this content can become richer, the comprehencion of a notion can never change to the point of coinciding with another notion. Elsewhere Bakradze shows the confusion resulting for Soviet philosophers drawn along by Hegel. Their argument deals with the notions of capitalism and socialism. The classical thesis says that capitalism passes over into socialism, which means that in objective reality, i.e., in social life, if certain conditions obtain, an economic-political form called socialism takes the place of an economic-political form called capitalism. But this does not mean that the notion or category of capitalism 'becomes' the category of socialism. Capitalism remains capitalism. There is no mutation of the notion. The error of the 'Hegelians 'is not to have distinguished the level of ontological real from the noetic order. They apply to the level of mind a property which is and must remain on the extramental level. This is understandable in the case of Hegel for whom there is identity of being and knowing but it becomes nonsense for Marxism which distinguishes these. The reasoning of Bakradze seems valid. And the problem is of importance. One must opt for dialectical thought and admit with Hegel that the categories pass over one into the other, or opt for metaphysical thought and refuse with Aristotle the 'communication of genera'. Bakradze follows Aristotle. And his impertinence extends to calling 'Hegelian' Rozental' who is the model of *Hofphilosoph* in the Soviet Union, and to refuting Rozental' with Deborin who was condemned for mensheviking deviationism. Deborin wrote that "the categories absolutely cannot pass one into the other".[70] Who, then, is the mensheviking idealist?

2. *Immanent Bonds*

The notion of immanent bonds between the categories played an important role in the establishment of a categorial system. The new, dialectical logic made it possible to deduce the categories along the lines of an intrinsic relation. This was Hegel's attempt in *Science of Logic*; an idea of genius – according to Rozental' – which should be integrated into dialectical materialism. But Bakradze hesitates here too since a close look is enough to show that this notion of 'immanent bond' does not fit into Marxist epistemology. In the Hegelian synthesis the categories necessarily

[70] Deborin [3], p. 55 (quoted by Bakradze [2], p. 439).

engender each other because the theory of science and knowledge is the development of the absolute idea or the self-development of the concept. Thus, immanent bonds are a presupposition of the self-development of the absolute idea; "Only an idealist, and in particular a Hegel, can talk about internal contradictions of concepts, about internal and immanent bonds, about reciprocal transition because the immanent bonds – the transition of one concept into another – is equivalent to the self-movement of concepts."[71] If the categories mutually generated each other and passed over one into the other, then *a priori* science would be possible. One notion would by its nature imply its opposite which, in turn would tend, in Hegelian terms, to 'suppress' itself in a third.[72] Bakradze is surprised to see Marxist philosophers taking such an obviously idealist path. For him, the affair is clear: "From a Marxist-Leninist point of view concepts do not contain their own principle of development: they reflect the principle of self-development of objective reality, but do not themselves contain this principle."[73] The confusion is always the same: lack of distinction between the ontological and epistemological levels. "It's the classic error. The properties of the extramental world are transfered to concepts and to categories."[74] Because the phenomena which make up the world form an organic whole does not mean that one can conclude to the possibility of deducing in an *a priori* way each of the concepts in which the world is reflected. Bakradze's argument, then, is the same as above, since the problem of immanent bonds is the other side of the problem of the transition of categories into each other. In an article in *Voprosy filosofii* ('The Problem of the Logic of Dialectical Materialism as a System of Categories') Gropp comes to the same conclusion. Looking at the first pairs of categories (content–form, quality–quantity), we see that there is between these pairs and between their separate elements neither intrinsic relation of development nor transition of one into the other; they are totally independent.[75]

3. *Contradictions in Thought*

We already know that Il'enkov defended the existence of contradictions

[71] Bakradze [2], p. 438.
[72] *Ibid.*, p. 439.
[73] *Ibid.*, p. 438.
[74] *Loc. cit.*
[75] Gropp, p. 152.

in thought. If there are no contradictions in the mind, he argued, then either there are no contradictions in reality, or our knowledge is not a faithful reproduction thereof. No one in the Soviet Union can deny the objective reality of contradictions. But there are many contemporary Soviet philosophers who do not accept the existence of contradictions in thought. Must we conclude that thought is inadequate? Bakradze, Zinov'ev, Boguslavskij, etc., come to the opposite conclusion: our thought is faulty precisely when there is a contradiction in the mind. As soon as thought reflects its object more profoundly and completely, the contradiction disappears. Zinov'ev begins by analysing the notion of contradiction in thought. Il'enkov's position seems quite paradoxical: there are contradictions in thought, but these are not logical contradictions. To which Zinov'ev replies: if there are contradictions in thought they have to be between two notions, a subject and a predicate. But, the contradiction between subject and predicate is what one normally calls a logical contradiction. This makes Il'enkov's problem clear. Thinking which enriched itself by means of logical errors would be a bit too much. Whence his effort to find a *via media* between the logical and ontological orders. Zinov'ev – a bit more serious in refusing such a middle way – concludes that there can be no contradictions in thought. "Logical contradictions which would be the reflections of real contradictions are absolutely non-existent."[76] However, since the 'Talmudists' still exist in the Soviet Union one has to accept battle on their low level. He is presented with the following text of Marx: "Profit results and does not result from the transformation [of goods]", which obviously contains a contradiction. Zinov'ev – as befits a good logician – answers that Marx wished simply to say that the transformation of goods is a necessary but not sufficient cause of profit. "In this way Marx eliminated a vicious paradox and gave a logically coherent explanation of the formation of the notion of profit."[77]

But it is professor Bakradze who is the best at solving this problem of apparent contradictions in thought. There is not even a real problem. Science discovers a new fact and this increase in our knowledge of the world forces us to modify the content of our old concept and to integrate the newly discovered characteristics. There is no trace of contradictions between the categories of thought. There is just this: the concept changes

[76] *VF*, 1958,12, 169.
[77] *Loc. cit.*

in order to more adequalety represent reality. Nuclear physics brings new knowledge about the structure of the atom, and "... the concept of the atom changes in order to more exactly reflect reality".[78] One does not have to have recourse to dialectical logic; the old formal logic is enough. Thus, the expression 'the logical development of thought' simply means a correct reasoning, a good logical demonstration based on the principles of identity and excluded middle.[79]

The doctrine of these authors thus differs completely from that of the Soviet philsophers we saw in the first part of this chapter. They hold the Hegelian method to be ruinous for dialectical materialism. This is why – as modest as they are consequent – they reject the idea of a 'dialectification' of the categories. For them such a 'dialectification' is a stupid and anti-Marxist introduction of Hegelian schemata into an epistemology which is simply not equipped to deal with them. Instead of dialectification they hold to a watered-down dialectic, a dialectic of knowledge or dialectic of categories which means nothing more than progress in knowledge – a progress which can be easily described by the good old logic of Aristotle. But, it is just this reference to Aristotle which causes trouble. One of the golden rules of Soviet philosophy is the unity of logic, theory of knowledge and dialectical materialism, i.e., of the logical, the cognitive and the ontological.

C. IDENTITY OF LOGIC, DIALECTIC AND EPISTEMOLOGY?

Both as espousing the unity of logic and being, and as holding the unity of knowledge and being, this theory is obviously Hegelian. It is espoused by all contemporary Soviet philosophers but differently interpreted by the partisans of a dialectification of knowledge, on the one hand, and those of a dialectic of knowledge, on the other.

In 'On the Dialectic', Lenin writes: "The dialectic *precisely* is the theory of knowledge [of Hegel and] of Marxism: voilà 'an aspect' (it is not an 'aspect' but the *central point*) which escaped Plekhanov and the other Marxists."[80] In his *Philosophic Notebooks*, Lenin recognises the Hegelian origin of this thesis: "In *Capital*, Marx applies to one single

[78] Bakradze [2], p. 437.
[79] *Ibid.*, p. 441.
[80] Lenin [4], p. 281.

science the logic, the dialectic and the theory of knowledge of materialism (there is no need for three words; it's one and the same thing), taking from Hegel all that is of value and developing it."[81] In fact, in the philosophy of Hegel "being is in itself knowledge of being".[82] The Logos requires no pre-existent base. Therefore, knowledge is not posterior to being – which leads some to believe that Hegel's historical analyses hide a basic empiricism. Soviet philosophy's continuation of Hegel depends precisely on these empirical–historical elements. The basis of all of Hegel's ontology – absolute knowledge – cannot be retained in a Soviet philosophy which distinguishes being from knowledge. One, therefore, should not be misled by Lenin when he says that one word is enough to designate logic, dialectic and epistemology: one word may be enough but only if it is given different meanings. Bakradze points out that the reduction can be done only through equivocation, and his exegesis of Lenin is a masterpiece. The *Philosophic Notebooks* say that logic, dialectic and theory of knowledge are one and the same thing; which means – according to Bakradze – that all three should be found in a good book like Marx' *Capital*.[83] But, "as a special science the dialectic is distinct from theory of knowledge and not identical to it since the former is not only the doctrine of the development of knowledge but also the theory of the general laws of the development of nature and society."[84] Nature and society exist independent of our knowledge of them. Marck[85] was indignant and showed in several ways that because Marxist philosophy is a realism it cannot hold to the identity of the dialectic and knowledge. However, if identity is taken to mean distinction, there is nothing left to say, except that one is better understood if one uses words in their normal acceptation. In the end, the Soviet theory reduces to the following: there is an objective dialectic which deals with the extramental; and there is a subjective dialectic which 'reflects' in the mind the objective dialectic. And if Lenin had not said that he was 'developing' an idea of Hegel, no one would have come to try a *rapprochement* between Marxism and Hegelianism on this point. Wetter

[81] *Ibid.*, p. 201.
[82] Hyppolite [1], p. 87.
[83] Bakradze [2], p. 255. The 'dialecticians' hold a diametrically opposed point of view: "Dialectical materialism is a single science welding in its content both the dialectic (or the dialectical method) and logic and epistemology" (Sitkovskij, p. 85).
[84] Bakradze [2], p. 256.
[85] Marck, pp. 129ff.

is right in saying that this is "a purely superficial imitation of Hegel".[86]

But it is the other aspect of Hegel's thesis – the identity of logic and dialectic – which has been a subject of dispute for over fifteen years.[87] Here there is more involved than a simple dispute between logicians. What is in question is the very nature of knowledge: is there a dialectic of knowledge of the type described by Hegel? The answer serves to determine ones views on the dialectification of the categories.

There was no problem on this point in the Soviet Union up to 1946. There was only one logic – dialectical logic. Formal logic – whether Aristotelian or Kantian – was idealist logic bound up with the old metaphysics was to be thrown overboard with the latter. Lenin was abundantly quoted: "The law of identity, A = A, is empty, 'unbearable'"[88], or: "The old formal logic is like a child's game where one puts together a fragmented picture (it was despised)."[89] For thirty long years the Soviets thought that logic, because of its laws of non-contradiction and of excluded middle, was opposed to the laws of the dialectic. One still finds this idea in the 1940 edition of the *Short Philosophic Dictionary* where it is stated: "The laws of formal logic contradict the laws of the dialectic."[90] This was the same era in which the linguist Marr seriously pretended that the laws of formal logic came from another period in history and that in a few years – three or four at most – the Russian language would disappear to be replaced by a new language, the Marxist language.[91] At that time, one held that logic like language was bound up with social classes. This is why they could hold that formal logic was bourgeois and reactionary. This is what Bakradze has to say about the period: "Articles and books on dialectical logic ... contained statements such as: formal logic falsifies the

[86] Wetter, p. 597.

[87] Some of the articles devoted to logic in *Voprosy filosofii* in 1950 and 1951 have been translated and published in East Germany: *Über formale Logik und Dialektik*, Berlin 1954. On the other hand, there are good reports on the discussion: Dahm, H.: 'Renaissance der formalen Logik', *Ost-Probleme*, 1957,8, 254–267; Philipov, A.: *Logic and Dialectic in the Soviet Union*, New York 1952; Kline, G. L.: 'Recent Soviet Philosophy', *The Annals of the American Academy of Political and Social Science*, January 1956, 126–138; Wetter, G. A.: *Der dialektische Materialismus*, pp. 591–623; Bocheński, J. M.: 'Soviet Logic', *Studies in Soviet Thought* **1** (1961) 29–38.

[88] Lenin [4], p. 76.

[89] *Ibid.*, p. 79. But Lenin also writes: "Aristotelian logic is a demand of the mind, an effort in research, an approach to Hegel, etc. ..." (Lenin [4], p. 286).

[90] *Kratkij filosofskij slovar'*, p. 296.

[91] Marr, vol. III, p. 118.

view of the world and is the best tool in the hands of the oppressing classes; it is the prop of religion and obscurantism."[92]

In 1950 there was a radical change. Marr's four years were long gone and Russian remained the language of Russia. At this point Stalin published his 'On Marxism in Linguistics'.[93] He directly opposes Marr and states that language belongs neither to 'base' nor to 'superstructure' – and this for two reasons. The first is a fact: languages remain even though superstructures change, e.g., on the occasion of the October Revolution. The other is a matter of theory: while the superstructure is linked to production through the economic base, language depends directly on human productive activity. Language is a 'human fact', which has nothing to do with the economy. Stalin concludes that language does not serve one class but a nation or group of nations.

This question of language was relatively unimportant. But the wall was breached. The logicians immediately attempted to end their isolation of thirty years. All they had to do – and they did it – was to show that logic is the science of exact language and is, therefore, not linked to a class. Rozental' rewrote his article in the *Short Philosophic Dictionary*, and we find that formal logic no longer contradicts dialectical logic but that "the laws and the rules of formal logic are those of the natural process of thought".[94] Thus, classical logic reappeared on the Soviet philosophic scene. With it came the problem of what to do with two logics, formal and dialectical. Discussion began on the subject in 1950 and, despite critiques, counter-critiques and auto-critiques, is still going on – which is something unusual in contemporary Soviet philosophy. Each Soviet philosopher has his own solution but there are two main classes: the 'Hegelians' who do all they can to limit the scope of formal logic; and the 'Aristotelians' for whom the only logic is formal logic.[95]

Having been forced to accept formal logic the dialecticians suddenly remembered Engels *Anti-Dühring*, where formal logic is relegated to a subordinate status: "Even formal logic is above all a method of finding

[92] Bakradze, K.: 'K voprosu o sootnošenii logiki i dialektiki', *VF*, 1950,2, 198.
[93] The French version can be found in Staline, *Derniers Ecrits, 1950–1953.*
[94] *Kratkij filosofskij slovar'* (French ed.), p. 314.
[95] Wetter distinguishes three groups of logicians: (1) the partisans of formal logic alone; (2) the partisans of both formal logic and dialectical logic; (3) the partisans of a *via media.* The third group is, in fact a sub-group of the second (cf. Wetter, pp. 165–166).

new conclusions, of progressing from unknown to known; this is infinitely more the case of dialectical logic which breaks open the logical horizon and opens out on a vast view of the world. The same relationship exists in mathematics."[96] For Engels, formal logic is to dialectical logic what elementary mathematics is to higher mathematics. Strogovič concludes that formal logic deals with static being while dialectical logic reaches the dynamically moving real: "It is my opinion that formal logic deals with the elementary laws of thought, which are the laws which reflect the simplest properties and relations of objective reality...."[97] In other words, the principle of identity is valid for static being but not for the real, dynamic world.[98] Since Rozental', who is more or less the leader of this group, has written that formal logic "... rejects evolution in nature and does not recognize the fact that knowledge is a complex dialectical process"[99], it is clear how little value it has for them. The fact is that these 'dialecticians' refuse to abandon their 'materialistic' revision of Hegel's dialectification of the categories. The correlation, a priori deduction and subordination of the categories require that logic be identical to dialectic. Since Aristotle's logic is not about to be absorbed into an ontology, it has to be set aside.

The first logician to denounce these superficial compromises with Hegelianism was professor Asmus who published in 1947 a clearly Aristotelian logic text[100], in which he held that the only scientific logic is formal logic. Though it was condemned the next year for deviationism, cosmopolitanism and formalism, it had broken the ice. Despite the flood of condemnations[101] the Aristotelian logicians have kept up their work. And this brought on the Bakradze incident. Attacked by the official journal, *Voprosy filosofii*, Bakradze instead of submitting explained his position in a letter, the title of which is revealing: 'Against Malicious and Unscientific Criticism'.[102] And the editors of the journal were "faced not

[96] Engels [1], pp. 165–166.
[97] Strogovič, M. S.: 'O predmete formal'noj logiki', *VF*, 1950,3, 316.
[98] Čerkesov, V. I.: 'O logike i marksistskoj dialektike', *VF*, 1950,2, 98.
[99] Rosenthal, p. 434.
[100] Asmus [1].
[101] *VF*, 1951,6, 143–149; *VF*, 1955, 3, 158–171.
[102] *VF*, 1956,2, 218–224. The editors of *Voprosy filosofii* answer that "one should not continue and aggravate the error but try to overcome it". (*VF*, 1956,2, 229–236). This article was directed against Bakradze and against Kondakov, another deviationist.

with the personal error of one wayward logician but with a disastrous movement of a whole group of our logicians".[103] In their fight against the Soviet philosophical 'establishment' the sole weapon of the logicians is their reason.

There must be an end to equivocation. They tell us, says Bakradze, that there are two logics: formal logic and dialectical logic. We are agreed that the texts of Engels are quite clear on the point. But does not the word 'logic' have the sense of *organon* in one case and of absolute knowledge in the other? To try to put together two logics like two building blocks shows that one has understood neither logic nor dialectic. Rozental', for example, writes that "ancient logic, formal logic, was incapable of solving the problem of the connections and reciprocal conversions of concepts because it denied evolution in nature and did not conceive knowledge as a complex, dialectical process".[104] Bakradze answers: "To reproach formal logic for denying development in nature shows that one has understood nothing about the object and nature of formal logic."[105] Logic neither affirms nor denies the existence of movement in nature since this is not its business. Formal logic – or just logic – deals with the rules of thought. Its main object is the true judgement. What is more, the same logic is everywhere valid, for the simple and the complex, for the static and the dynamic: "In the process of the knowledge of things and of phenomena of nature – whether the being is simple or complex, whether it is relatively stable or in continuous change – any being is always subject to the laws and rules of formal logic."[106] Anything else is nonsense.

There remains the definition of the notion, 'dialectical logic'. The 'dialecticians' hold that it is a superior logic. But, asks Bakradze, does this logic "have laws identical with those of formal logic? Do the conclusions of 'dialectical logic' differ from those of formal logic?"[107] No one has yet answered this question. And this is because the partisans of 'dialectical logic' have gone up a blind alley. What did the classics teach? Simply that dialectical logic is dialectical materialism, i.e., dialectical ontology When Lenin writes: "... Marxism, i.e., dialectical logic..."[108], that is

[103] *VF*, 1955,3, 158.
[104] Rosenthal, p. 434.
[105] Bakradze [2], p. 436.
[106] Bakradze, K.: 'K voprosu o sootnošenii logiki i dialektiki', *VF*, 1950,2, 200.
[107] *Ibid.*, p. 201.
[108] Lenin, V. I.: *Sočinenie*, vol. XXIV, p. 135.

what he means. Bakradze adds: "When the classics of Marxism talk about dialectical logic they identify it with the dialectic and with dialectical materialism. ... This is what Lenin has in mind when he says that logic, dialectic and theory of knowledge are one and the same thing."[109] Thus, it is clear that there are not two logics which deal with the same object. There is, on the one hand, a scientific, formal logic which applies to reality as a whole; and ,on the other hand, there is general philosophy, the Marxist *Weltanschauung* – what the Soviets themselves sometimes call an ontology. In 1956 several of Bakradze's colleagues in Tiflis wrote to *Voprosy filosofii* to say that Bakradze had solved the problem of the relations between formal and dialectical logic and that one should turn to other problems.[110]

What is disturbing for the outsider is to see these philosophers defend obviously idealist theses on the unity of the logical and ontological and on the dialectification of the categories and believe that they are being real Marxists. This error must have serious causes and we shall now turn to examine them.

D. SYSTEM AND METHOD IN HEGEL

Hegel's philosophy is obviously the historical starting point of dialectical thought. But, because Hegel was the typical idealist philosopher, radical transformations are necessary to integrate the dialectic into a materialist synthesis. To put the dialectic 'on its feet" and to find its 'rational kernel' is one of the main tasks of contemporary Soviet philosophy. The danger in the operation is that if one does not eliminate all the idealist elements there remains a 'mystification' of the type which drew Lukács and Deborin astray.

In *Anti-Dühring* Engels provides the methodological rule which should help separate the 'rational kernel' from the dialectic. "As such, Hegel's system was a colossal abortion – though the last in the series. Did it not suffer from an incurable internal contradiction? On the one hand, its basic postulate was the historical notion that the history of humanity is an evolutionary process which by its nature cannot end in the discovery of

[109] Bakradze, *op. cit.*, p. 201.
[110] *VF*, 1956,3, 232.

a so-called absolute truth; but, on the other hand, it claimed to be this very sum of absolute truth."[111]

Some contemporary Soviet philosophers hold the internal contradiction to be that between the method and the system of Hegel. The method of Hegel is authentically dialectical, dynamic and evolutionary. But Hegel's system is this 'colossal abortion' which finishes in pure mysticism. This was the idea of Deborin: "Since Marx and Engels accept the bases of Hegel's method and reject his system, one can say that they were better Hegelians than Hegel himself."[112] Thus, since the method of Hegel is a genuine dialectical method and only his system is idealist, it is enough to take the method as it is and to give it a really materialist content. Is this not what was done by those who effected a dialectification of the categories?

A closer look at Hegel shows that this separation of method and system is impossible since for Hegel method and system are the same thing. "Thus, for Hegel, method and system are identical."[113] This means, says Bakradze, that if the system is idealist, the method is too. Putting the dialectic back on its feet, then will require a patient analysis and cleansing of the Hegelian dialectic, i.e., a complete rethinking of the notion of dialectic. One could fear, says Bakradze, that this would put one in contradiction with Engels, but this is not the case. The internal contradiction to which Engels referred is not that between Hegel's dialectical method and his system but that between the finite system and the infinite form. The dialectic is *in se* a method of infinite progress; but the concrete dialectic of *Science of Logic* has lost the transcendent character which is the sign of a truly dialectical thought.[114]

If this is the case, there is no connection between the dialectic of Hegel and the Marxist dialectic. And those philosophers who try to introduce into Marxism a dialectic of categories are being unfaithful to Marxist philosophy. This is why their writings are incoherent; this is why their systematisations lead to idealism. In a recent article in *Voprosy filosofii*, Gropp puts his finger on the trouble. They thought that a reasoned return to Hegel was possible by avoiding the errors of Hegel. But, in fact, it is not possible. In Hegel, the interdependence and the development

[111] Engels [1], p. 56.
[112] Deborin [1], p. 245.
[113] Bakradze [2], p. 175.
[114] *Ibid.*, pp. 176–177.

of the categories are identical and inseparable. Which means that a general system of categories, a system based on the objective subordination of phenomena, will necessarily have to conceive the development of the world in one global direction. This is the typical teleological construction of Hegel[115]; and this is the real meaning of *Science of Logic*. What Gropp calls the teleology of Hegel is the dialectic in as far as it is developed in a system of categories which are intrinsically connected to each other. Dialectical thought implies the triad (thesis–antithesis–synthesis), as Hyppolite says: "The rational minimum is the triad: thesis, antithesis, synthesis. ... It is necessary to conceive the reflection of the thesis in the antithesis as well as that of the antithesis in the synthesis, and the latter is not the disappearance of the opposition in a dead unity. ... This is why the triad as a whole is the rational minimum."[116] The mere affirmation of unity in diversity and diversity in unity, and of the development and progress of thought in the penetration of its object, is not yet the true dialectic. According to Hegel, there is dialectic only if two concepts can be understood only in reference to a *tertium comparationis* which includes the two others. The dialectical process is not the connection between a concept and its contrary but between two concepts and a totality.[117] The categories of the dialectic are the elements of the *schöne Totalität*. "Hegel conceives the categories as the determinations of the All which is being in thought. Whence, they are elements which are dialectically entwined; each reflects the others; each provides a view of the All and must be overcome."[118]

This interpretation – which is that of the best Western commentators of Hegel – is that provided by Gropp or Bakradze. The latter writes: "Thus, the bonds between the categories are not relations of *genus* to *species* but those of a whole – or a relative whole – to the components or aspects of this same whole."[119] Which evokes the following note: "Despite what many Soviet authors say and write, the principle of the self-movement of the categories is absolutely not contained in the notion of contradiction or contrariness. The contradiction between A and non-A is not the con-

[115] Gropp, p. 152.
[116] Hyppolite [1], p. 74.
[117] Leisegang, p. 202.
[118] Hyppolite [1], p. 205.
[119] Bakradze [2], p. 313.

trary or the contradictory of formal logic. ... The contradiction which Hegel talks about is not one of these oppositions."[120] The dialectical contradiction which is the basis and the principle of the self-development of the categories – and in which Barkadze sees the idealism of Hegel – is quite distinct from these logical oppositions. If a category comes from another category and if there is a dialectic of the knowledge of categories, this is due to the fact that non-*A* which results from the negation of *A* is the 'other of *A*'. In a philosophy of the understanding the negation of *A* is an indeterminate negation (an empirical negation which cannot posit a new concept). But, in Hegel's philosophy every negation is speculative (i.e., a negation which engenders a determinate concept). It is easy to see why this Hegelian dialectic cannot be reproduced in a philosophy of the understanding like dialectical materialism.[121]

And what was proposed by those contemporary Soviet philosophers who claim to establish a materialist system of categories? Of course, they talk about immanent bonds, subordination and 'transition'.[122] But, there is not a word about the 'rational minimum', i.e., the triad. On the contrary, one of the basic properties of the categories is polarity (*poljarnost'*).[123] Thus, the 'rational minimum' of the Soviet 'dialectic' is not the triad but the dyad (essence–phenomenon, content–form, quality–quantity, etc.). But the dyad is typically ontological and not dialectical; it served as the basis of the systems of Plato, Aristotle, etc. Dialectical thought can be understood in two ways. First, one can say that any philosophy which admits 'communication of *genera*' (founded either on participation or analogy of attributes), even if it excludes "μετάβασις εἰς ἄλλο γένος", is

[120] *Ibid.*, p. 315.

[121] On this precise point there is less difference between a spiritualist philosophy (Plato or Aquinas) and a materialist philosophy (Democritus or Soviet philosophy) than between them and Hegel.

[122] What is more, these contenporary Soviet philosophers hold a wrong interpretation of the Hegelian notion of the transition of one category into another. Hegel certainly did not mean to say that a notion becomes another but that, thanks to the Logos, a notion includes a content which at first glance seemed completely foreign to it. This is the view of a leading commentator of Hegel: "Hegel speaks of one notion turning into another, meaning that a notion, thought through, reveals contents which at first seem alien and even opposed to this notion. What happens is not that in the thought process one notion is replaced by another, by one more adequate to reality, but that the same notion unfolds its own content – a dynamic which *is* that of the reality comprehended in the notion" (Marcuse, p. 139).

[123] Tugarinov, p. 12.

a dialectical philosophy. But a system where the 'communication of *genera*' implies the "μετάβασις εἰς ἄλλο γένος" is dialectical in a very different sense. One is a philosophy with binomial categorial groups (the same and the other, the determined and the indeterminate, etc.) while the other requires triads (thesis, antithesis, synthesis). Contemporary Soviet philosophy can call itself dialectical in the first sense but not in the second, which is typically Hegelian. Bakradze is right, then, and Rozental' wrong. Hegel's system and method cannot be separated like peach and stone. And this explains the failure of those contemporary Soviet philosophers who seek a dialectical system of categories. It is a case of too much and too little at the same time. Too little, because there is only a superficial assimilation of Hegel's dialectic; the dyad replaces the triad; and the primacy of being over knowledge destroys the unity of the ontology of knowledge; the categories – which should be parts of a whole – are conceived as *species* in one and the same *genus*. But, paradoxically, this is too much, for as long as the words retain their meaning the notions of immanent bond, subordination and transition of one category into another indicate a categorial system like this "bacchanalian delirium where no one is not drunk".[124] For, they postulate the self-development of the concept, which is this 'trick of reason' which Bakradze sees as the teleological mysticism of Hegel.[125] Gropp concludes: "In its dialectic, objective reality cares little for a schematic system of categories."[126]

It would seem to be good Marxism to reject these 'flirtations' with Hegel and to refuse the dialectification of the categories. But any self-respecting philosophy has to think about the categories. Gropp thinks that "a 'Marxist' system of categories ... cannot get rid of Hegel's basic errors".[127] If this is so, Marxist philosophy would remain a vulgar positivism. All this leads to a conclusion already traced by Merleau-Ponty in *Adventures of the Dialectic*, where he wrote that Soviet Marxism is "... a pre-Hegelian and even pre-Kantian epistemology".[128] This is our impression, too. We noted in the previous chapter that Soviet epistemology is basically realist. To the extent that Hyppolite is right in thinking that

[124] Hegel [2], p. 40.
[125] Bakradze [2], p. 450.
[126] Gropp, p. 153.
[127] *Ibid.*, p. 157.
[128] Merleau-Ponty, p. 84.

even for Marx every objectification is not an alienation, i.e., to the extent that Marx accepts the postulate of a 'datum', it is evident that any effort to dialectify this 'positive datum' will fail. Without clearly perceiving the fact, contemporary Soviet philosophers have run directly into the main difficulty of relations between Aristotelianism and Hegelianism. That they no longer consider Hegel a 'dead horse' and no longer are willing to leave him to reactionary bourgeois philosophy, shows that they want to take him seriously. The author of *Science of Logic*, dropped since the condemnation of Lukács and Deborin, is now back in style. Rozental"s way seems to lead nowhere. Only by following Bakradze will Soviet orthodoxy come to understand these words of Marx: "My dialectical method is not only basically different from that of Hegel, but it is the exact opposite thereof."[129] That contemporary Soviet philosophers ask themselves if dialectical logic is opposed to Aristotelian logic shows how misunderstood Hegel has been. And, although dialectical thought should take into account the historical content of knowledge, Hegel never admitted the reduction of the logical to the historical. The exposition of the theory of truth which will close this section on the dialectic of the categories of knowledge will clearly show that Soviet philosophy teaches not only that human knowledge must always redefine its notions in order to make them better correspond to reality but also that speculative thought is dissolved in historical evolutionism.

E. OBJECTIVE TRUTH: ABSOLUTE AND RELATIVE

The main problem of theory of knowledge is the notion of truth. Since they are under constant fire from critics, contemporary Soviet philosophers are very careful to defend their point of view against what they call the 'falsifications' of bourgeois writers. There are two types of falsifiers: those who think that Marxism rejects all objective truth and those who, impressed by the apodictic character of the system, accuse Marxism of being dogmatist. Evidence for both is easy to find. It is enough to select out certain passages where Marx and Engels come out against the existence of 'eternal truths' in order to show that Marxism is a relativist or even sceptical philosophy. The study of the surprising variations in the juridi-

[129] Marx [3], vol. I, p. 29.

cal, familial, etc. institutions since the October Revolution can also be adduced as proof.[130] Despite all this apparent changeability it is a fact that contemporary Soviet philosophy is a well-established doctrine based on fundamental theses which have the force of a credo. Evidence for this side is easily found in the expulsions and condemnations for 'deviationism', 'revisionism', etc. But contemporary Soviet philosophers do not accept the alternative, relativism or dogmatism.

This problem is always taken up under the title, 'Objective, Absolute and Relative Truth', There are two questions here: the problem of the objective nature of truth, and that of the dialectical character of truth (absolute and relative truth).[131] The objective nature of truth is closely tied up with the Soviet theory on 'reflection'. As Lenin says: "Consider our sensations to be images of the outer world, recognise objective truth, adopt the materialist theory of knowledge – all this is the same."[132] Dialectical materialism thus adopts the definition of the judgement according to Aristotle. Tugarinov writes: "Truth is the conformity [*sootvetstvie*] of thought to reality."[133] This is the classic *adeaquatio intellectus et rei.* There are some arguments on this point. Is truth only in the judgement or also in the first operation of the mind? Bourgeois philosophers and some contemporary Soviet philosophers hold that truth does not reside in the simple notions or categories. Because the concept neither affirms nor denies, it is neither true nor false. Andreev holds this to be anti-Marxist. He claims that concepts are of two types: those which reflect an actual objective reality (matter, the laws of the dialectic, etc.), and those which are mere products of human 'phantasy' (God, immortality, etc.). To say that the concept is neither true nor false is to say that it is empty, a mere word.[134]

This opinion is worth mentioning since it shows how a literal interpre-

[130] "But for a Marxism which puts itself in a dialectical perspective, the dialectic dissolves the notions of absolute truth and of the human conditions which correspond thereto" (Chambre, p. 309).

[131] "There are two sides to the question of truth: (1) Is there an objective truth? (2) How does one know this objective truth: all at once, or progressively? The second question requires that one first resolve the question on the reciprocal relations between absolute truth and relative truth" (*Osnovy*, p. 326).

[132] Lenin [1], p. 111.

[133] Tugarinov, p. 117.

[134] Andreev [1], pp. 289–291.

tation of 'reflection' has lead not to realism but to 'chosism'. But, those philosophers – bourgeois or Marxist – who put truth in the judgement by no means deny the objective character of the concept or of the categories of thought. When Asmus writes in his *Logic* that "all scientific truth is expressed as a judgement"[135], this shows that he is not a mechanist.[136] He has understood that thought is not a simple copy of the ontological. There is no truth where there is no knowing subject who affirms in a judgement that what is in his mind conforms to extramental reality. Whatever their opinion on the *locus* of truth, all contemporary Soviet philosophers affirm that our knowledge is objective.

Objective truth is that, the content of which does not depend on man or on humanity. Because this point is so central to their doctrine, contemporary Soviet philosophers spend a lot of time defending it and one must admit that few philosophers are as consistent in their opposition to agnosticism and subjectivism. Xasxačix writes: "The recognition of objective truth is a presupposition of materialist philosophy. Everywhere and always, the materialist recognises objective truth."[137] Having established that truth is objective, one must go on to explain how the individual attains truth. How is the general category of objective truth 'concretised'? For contemporary Soviet philosophy truth is absolute *and* relative: not simply absolute or solely relative, but both at the same time. And this is a critical point in the dialectic of truth.

Absolute truth is not defined in the same way by all contemporary Soviet philosophers, which causes no end of confusion not only among non-Marxists but also in the ranks of the Soviets themselves. In the strict sense an absolute truth is one which includes the totality of accurate affirmations on a given thing or on the totality of the real. Andreev says: "By absolute truth dialectical materialism understands not only a complete, exhaustive and profound understanding of the objective world, but also the total truth which adequately reflects a given fact, reality or law."[138] In this sense absolute truth is obviously the ideal limit of knowledge, which will never be attained either by man or by humanity. The

[135] Asmus [1], p. 70.
[136] Andreev with his mechanist theory seems completely ignorant of the fact that the concept has a value of 'supposition' only through the act of judgement.
[137] Xasxačix, p. 173.
[138] Andreev [1], p. 261.

real is inexhaustible not only because man has a limited intelligence but also because nature is in limitless evolution.

In a more restricted sense an absolute truth is one for which there is evidence leading to certitude. "What is absolute truth? Absolute truth is truth which cannot be refuted either in the present or in the future."[139] The word 'absolute' indicates an absolute truth which is totalising or non-totalising, or – as Andreev puts it – which is concrete absolute truth or abstract absolute truth.[140] In the one case one can say that Marxism admits absolute truths; in the other, that it only admits of relative truths.[141]

Does dialectical materialism admit of non-temporal truth, i.e., eternal truth? All contemporary Soviet philosophers answer in the affirmative. But Marx had nothing but contempt for those philosophers who admitted eternal truths. Is there an opposition here? No, because Marx was attacking so-called 'eternal' truths which are in reality ideological falsities resulting from a false economic base. Marx wants to eliminate these pseudo-truths but does not deny the existence of non-temporal truth.

Knowledge is an evolutionary process and this is why it involves a dialectical progression. Absolute truth is reached only through relative truth. Tugarinov answers the question 'What is relative truth?' as follows: "This truth is approximate, incomplete, not fully exact, and requiring further development."[142] *Osnovy* differs a bit: "Relative truth is knowledge which is a fundamentally correct reflection of reality even though it is not an exhaustive knowledge but only the reflection of an object seen within limits and from a certain angle."[143] One cannot avoid asking: Is this relative truth accurate or not? Some contemporary Soviet philosophers say it is accurate: Others deny this. There is the same difficulty here as in the case of absolute truth. If by 'accurate' one means a truth which exhausts all aspects of its object, there is no fully accurate truth; but, if 'accurate' simply means a truth which factually attains certain properties of the object, then relative truth can be accurate. Now we can better understand what dialectical materialism means by dialectical bond between absolute truth and relative truth. It is an effort to avoid two extremes.

[139] Xasxačix, p. 177.
[140] Andreev [1], p. 261.
[141] "One sometimes hears that all is relative and there is nothing absolute. This is false" (Tugarinov, p. 120).
[142] Tugarinov, p. 119.
[143] *Osnovy*, p. 327.

Dogmatism holds that human knowledge can *unico intuitu* grasp the totality of its object. Relativism dissolves knowledge by excluding any element of certainty. For Marxism, these are the typical errors of 'metaphysical' thinking. The metaphysician is he who 'absolutizes' and 'isolates' an aspect of the real. "The metaphysician declares that truth is only absolute or only relative."[144] But, for dialectical thought, truth is at the same time absolute and relative: which means that absolute truth is known only through relative truths and relative truths contain an element of absolute truth. That the latter affirmation is important can be seen from the frequent references to it in the writings of contemporary Soviet philosophers. "Absolute truth and relative truth are two elements of objective truth. ... Absolute truth is made up of the ensemble of relative truths and each step in the development of science contains a 'kernel' of absolute truth."[145] "Relative truth is a step or degree in the knowledge of absolute truth."[146] Dialectical materialism "... considers relative truth to be a moment, a part, a step in the knowledge of absolute truth."[147] It is thus clear that the theory of truth of dialectical materialism is in a certain sense 'relativist'. But if relativism is the negation of all certainty, dialectical materialism is not only not relativist but even the most deadly enemy of relativism. The only relativity which it admits and defends is that of a knowledge which dialectically passes from an imperfect grasp to a more perfect comprehension of the object, the grasp being considered asymptotic. This is why contemporary Soviet philosophers like to say that dialectical materialism includes relativity but is not reduced to it. To say that dialectical materialism teaches that what is true today will be false tomorrow and again true the next day is really a 'falsification' of its doctrine on truth.[148] The relativity that Marxism talks about refers

[144] *Ibid.*, p. 328.
[145] *Ibid.*, pp. 327–328.
[146] Xasxačix, p. 177.
[147] Andreev [1], p. 263.
[148] Meurers offers the following summation of the Marxist theory of knowledge. Knowing is a process. But, by nature, a process has no relationship with the true and the false. Therefore, the Marxist theory of knowledge develops outside of the sphere of truth and error. He even writes: "Es ist möglich, dass von einem an den Prozess verfallenen Erkenntnisbemühen etwas bislang für wahr Angesehenes mit Emphase als falsch bezeichnet wird, um es nach einiger Zeit kurzehand wieder für richtig zu erklären, ohne dass dadurch das Gefüge jenes Erkenntnisbemühens erschüttert wird, wie es mit dem Mendelschen Erbgesetzen von kurzem geschehen ist. Denn dem

to the content not to the certitude. As concerns certitude, a 'relative truth' is, in fact, very simply objectively true (relative truth is a participation in objective truth). As concerns the content, it is only relative because it only touches part of the object. This is why the notions of part and whole best express the dialectical relation of absolute and relative truth. "Absolute truth is to relative truth as whole to part."[149] Each historical moment sees only a part and this is why knowledge must always continue. "The development of the categories and notions is subject to the general law of knowledge which holds that human knowledge only reaches absolute truth through the mediation of relative truth. Each new historical step brings clarification, deepening and concretisation of our concept and categories...."[150]

Even though contemporary Soviet philosophers do not explicitly mention it, it is obvious that knowledge as they view it progresses in two ways. In the first place, dialectical progress involves separating the bad from the good in knowledge. Relative truth is relative not only because it is not total but also because it contains some error. Copernicus taught that the earth turns about the sun but, at the same time, that the sun is fixed in the firmament. In philosophy a good example is the system of Hegel where the good is so intimately mixed with the bad. In any case, 'progress' always means 'purge'.

The other type of progress in knowledge involves penetrating ever more deeply into a knowledge which is simply true. It is obvious that in the eyes of the Soviets the basic theories of Marxism – like the primacy of being over thought, the objective existence of matter, the transition from quantity to quality, etc. – contain no error: they are, nevertheless, relative truths since the human mind will never exhaust them. Dialectical progress here means 'penetration' of a truth and in this sense Soviet philosophy keeps

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Erkenntnisbemühen kommt es nicht mehr auf die Erkenntnis, sondern auf den Vorgang des Erkennens an" (Meurers, p. 122). No other Soviet philosopher has held such an obvious paradox!

[149] Xasxačix, p. 177.

[150] Rozental' [2], p. 11. On this point the Soviet theory agrees with the position of the Western writers. Note this text of Gonseth: "The dialectical process is essentially the progress and purging of knowledge under the pressure of an experience which confronts it" (*Pouvoir de l'esprit sur le réel*, p. 14). – S. A. Efirov recognises the correctness of the position of Gonseth but notes that the fact that Gonseth does not admit dialectical materialism leads him to fall into subjectivism and neo-positivism ('Teorija dialektiki Ferdinanda Gonseta i dialektičeskij materializm', *VF*, 1958,8, 51–62).

the dialectic open. But, having shown that Marxist philosophy would not have existed without the necessary stages represented by previous philosophies, Xasxačix adds :"But it would be false to conclude that Marxism is but a simple stage in development. The birth of Marxism was a real discovery, a revolution in philosophy."[151] But, if philosophy has arrived, the dialectic stops. And the reply of the Marxist: philosophy becomes qualitatively other; the dialectic as 'purge' is replaced by the dialectic as 'penetration'.[152]

It has been said that dialectical materialism is not at all pessimistic.[153] It is, in fact, both too pessimistic and too optimistic. A philosophic system can be pessimistic in two ways. Like Kantianism one can be pessimistic because the congenital impotence of the *intellectus derivatus* makes any *a priori* analytic judgement impossible: *Critique of Pure Reason* so separates understanding and sensibility that cooperation becomes impossible. But one can also become pessimistic because the Logos does not have enough transcendence over the sensible: and this is the case with dialectical materialism. If mind is but a product of the historical evolution of matter, it follows that the truth which ones calls objective is, in reality, only a historical truth. But, it seems probable that a basic quality of truth is to be meta-historical.

But, dialectical materialism is also too optimistic in that, having rejected the existence of the thing–in–itself (whether it be the Platonic idea, the God of Aristotle, or the Logos in general), it nevertheless continues to affirm that the real is rational .While the entire classical tradition put the Logos as the basis of truth and of the dialectic, Soviet orthodoxy puts at the basis of truth and of the dialectic the essential category of its ontology, matter. How can one say that the real is rational if the real is matter? If contemporary Soviet orthodoxy continues to affirm that

[151] Xasxačix, p. 180.

[152] This thesis of dialectical materialism has an immediate application in historical materialism: the contradictions of a society divided into classes (dialectic as purge) gives way to the non-antagonistic contradictions of a classless society (dialectic as penetration). – After writing this chapter I received *The Principles of Marxism-Leninism*, which confirms my interpretation of the dialectic of truth. "The dialectic is a science and cannot develop. ... But the development of the dialectic as a science cannot eliminate the fundamental principles developed during the long history of human thought; it only means a wider and deeper understanding of these principles" (p. 125).

[153] Lefèbvre [1], p. 67.

matter is rational – i.e., source of truth – without offering any justification, this is due to the fact that finding such a justification would be rather embarassing. To declare that truth's only foundation is matter is to abandon the right to talk of truth.

CHAPTER V

THE CATEGORY OF MATTER: BASIS OF ONTOLOGY

While uncertain about the order of the categories, all contemporary Soviet philosophers agree that the basic notion of ontology is the category of matter. That Marxism has an ontology and that this ontology is based essentially on matter is for those philosophers who do not belong to Marxist orthodoxy a typical infidelity to Marx. Soviet philosophers know these criticisms and have their answers ready. But before going into the details of the debate it will be useful to see how the Soviets analyse matter.

Lenin's *Materialism and Empirio-Criticism* is basic in this domain. The fiftieth anniversary thereof has been the occasion for reaffirmations of its pertinence and accuracy.[1] All works dealing with dialectical materialism or with the notion of matter are based on the principle that the category of matter is the alpha and the omega of true philosophy. Soviet Maxism begins with the study of matter: "The starting point of dialectical materialism is the knowledge of the objective existence of matter in eternal movement and development."[2] In dealing with the categories we saw that one must begin with those which have the poorest content. But, when contemporary Soviet philosophers say that matter is the first notion which comes into the mind they do not at all wish to say that it is the poorest and most undetermined. On the contrary, there is no idea as rich as that of matter: "The concept of matter is the broadest and most comprehensive for expressing what true reality is."[3] Matter is in Marxism what substance is in Spinozism or being in Thomism: it is the basic category. Whence such texts as: "The cornerstone of Marxist philosophic materialism is the concept of matter."[4] "The concept of matter is the fundamental concept of materialism."[5] Matter is the *Urprinzip*, the *Urgrund* of philosophy: to philosophise is to understand what matter is.

[1] Simonjan, E. O.: *O rabote V. I. Lenina "Materializm i empiriokriticizm"*, Moskva 1959. And *VF*, 1959,5, which is devoted entirely to *Materialism and Empirio-Criticism*.
[2] *Osnovy*, p. 111.
[3] Xasxačix, p. 16.
[4] *Ibid.*, p. 15.
[5] Vostrikov, p. 43.

In defining materialism the Soviets do not refer to Marx but to Engels and, above all, to Lenin. Most of the quotations come from *Materialism and Empirio-Criticism* as, for example, the following definition: "Matter is a philosophic category which designates that objective reality given to man in sensations which copy, photograph and reflect it while it remains an independent existent."[6] More briefly: "The sole 'property' of matter which philosophic materialism must recognise is that of *being objective reality*, of existing outside of our consciousness."[7] We have already seen that materialism has two aspects: the epistemological thesis on the primacy of being over thought; the ontological thesis on the material character of the world and of consciousness. This latter thesis means that all that is is – if not matter – at least material. While Lenin defines matter in an epistemological way by opposing it to consciousness, he does not mean that consciousness is not material. Mitin warns against this false interpretation: "We distinguish matter from consciousness and we set one over against the other; but this opposition is relative and has sense only as an epistemological problem, i.e., in as far as we find in matter itself a special property, consciousness, which is the property of highly organised matter. The opposition between knowledge and being is the opposition between knowing matter and known matter – and that's all."[8]

The reader has a right to be dissatisfied with this explanation. When one tells us that the totality of the objectively real – the totality of that which exists – is material, this tells us little about matter or about the essence of material reality. Lenin's thesis simply means that materialism is a realism. This point has often been noticed, as by Wahl in his *Traité de métaphysique*: "In fact, Lenin's materialism is at the same time and above all a realism, i.e., the affirmation that there is an external world; thereby – in a sort of dialectic of the dialectic itself – we see that we are in a world quite different from that of Hegel."[9]

Lenin says that the sole property of matter is to be the objectively real. And contemporary Soviet philosophy tries to explicate this notion. To follow it is to penetrate the definition of the category of matter in a

[6] Lenin [1], p. 110.
[7] *Ibid.*, p. 238.
[8] Mitin, M. B., in *Dialektičeskij materializm i istoričeskij materializm*, Moskva 1933, p. 107.
[9] Wahl [1], p. 689.

twofold explanation. First, Marxist orthodoxy shows its originality by opposing other materialist schools. Second, it analyses the content of the notion of matter in itself.

A. VULGAR MATERIALISM AND DIALECTICAL MATERIALISM

Dialectical materialism considers itself the heir of those philosophies which since the time of the Greeks have held that matter is the sole reality. But contemporary Soviet philosophers want to avoid at all costs being identified with the pre-Marxian materialists. There is a qualitative difference between the 'vulgar materialism' of the Encyclopedia (and its 19th-century continuations) and 'scientific materialism'. Of course, Soviet orthodoxy appreciates the fact that these other forms of materialism have always taught that the totality of the real is by nature material. But it reproaches all these philosophical trends with not having understood and developed all the meaning of this thesis. This failure is due to the fact that vulgar materialism confuses matter with one of its existential forms. Thus the ancient atomists "... put matter at the basis of all things but identified it with one of its various forms: for Thales, it was water; for Anaximenes, air; for Heraclitus, fire".[10] Against Descartes and Newton, the argument is the same: matter is not reducible to extension. And to identify matter with one of its aspects is to subject oneself to the blows of science. "The destruction of the ancient concrete representations of matter was interpreted by them [the physicists of the 19th century] as the disappearance of matter itself."[11] The error of 'mechanist' materialism and of 'physical' idealism lies in the narrowness of their definition of matter: "But pre-Marxist materialism's treatment of matter suffers from essential defects; it remains dependent on the state of development of the science of the time and on metaphysical and mechanist conceptions. Matter is generally identified with one of its types...."[12]

Thus it becomes clear what Lenin in *Materialism and Empirio-Criticism* and contemporary Soviet philosophers are both seeking: to develop a concept of matter so universal that it contains and transcends both what science has discovered and what it will discover on the structure of material

[10] *Kratkij filosofskij slovar'* (French ed.), p. 383.
[11] *Ibid.*, p. 384.
[12] Arxipcev [1], pp. 27–28.

beings. This is the path which contemporary Soviet philosophers have taken in the elaboration of a philosophic concept of matter.[13]

From the idea that the notion of matter should not be identified with what one era teaches on the structure and properties of matter, some Soviet philosophers have concluded that the philosophic category of matter is really distinct from the scientific notion of matter.[14] They thus thought their concept of matter safe from the attacks of science. "The way of avoiding difficulties is found in the distinction between the philosophic and physical definitions of matter. This is at the present time the only way to avoid the crises of contemporary sciences."[15] So that the *Great Soviet Encyclopedia* offers this distinction as "... the necessary presupposition of he who wishes to exactly follow the line of materialist philosophy".[16] And these philosophers are of the opinion that this wonderful theory applies both to the discoveries of modern physics which seemed to imply the 'disappearance of matter' and to quantum theory or the theory of complementarity.[17]

This conception predominated in Soviet philosophy from 1925 to 1950. Although it is now attacked and unanimously rejected, it was necessary during the dogmatic period of Stalinism. The thesis of the 'double concept' is nothing other than a 'trick of reason' to free modern science from its strictures. To separate science from philosophy was, at the time, a good way to adopt physical theories which had been condemned, even though philosophic dogmatism really can do nothing against real science.

The scientists have been freed since 1950. There is no longer any need for a double concept of matter. As of 1951 the thesis on the double concept becomes the model of mensheviking heresy. Arxipcev, who was one of the first to react, thinks he can show that the error is directly due to Deborin. To hold the existence of two concepts of matter leads directly to the acceptance of a double truth, philosophical and scientific. But this breaks the dialectical connection between science and philosophy.[18] At

[13] Archiptzew, F. T.: 'Die Kategorie Materie und die moderne Physik', in *Naturwissenschaft und Philosophie*, pp. 89–101.

[14] "One must distinguish the concept of matter used in physics from that taken as a philosophic category" (Omel'janovskij [1], p. 54).

[15] Pozner, p. 2.

[16] *Bol'šaja sovetskaja enciklopedija*, ed. 1, vol XXII, p. 134.

[17] Wetter, pp. 336–345. Müller-Markus, S.: *Einstein und die Sowjetphilosophie*, Dordrecht 1959, vol. I, pp. 9–15.

[18] Vostrikov, p. 49.

present, the accepted thesis holds that the category of matter is a philosophical category, and the philosophic definition of matter has to be accepted by the scientists in various fields. Physics, chemistry, biology, psychology and even the social sciences study only a particular form of matter. "Matter, i.e., objective reality, is the object of all sciences. The different sciences of nature study the diverse forms of the movement of the sole objective reality, i.e., matter. ... The Marxist-Leninist concept of matter – the basic concept of dialectical materialism – is the theoretical basis of all sciences of nature and of society because all these sciences begin with the concept of matter as objective reality."[19] Each discipline describes an aspect of the material real; none of them attains the essence of matter.[20] "This is why the affirmation that science has its own concept of matter different from that of philosophy – the thesis on the double concept of matter; one philosophic and the other scientific – is totally erroneous and without any basis."[21]

While the sole correct definition of matter is provided by philosophy, it is science that provides information on the constitution of the different concrete existential forms of matter. And though the double concept is gone there is still a distinction between the philosophic 'category' of matter and the scientific representations (*predstavlenie*) of matter. "The concept of matter and the scientific notions on the constitution and properties of matter are intrinsically related and mutually support each other. One must, therefore, not identify them."[22]

Granted that one should not identify them, a new difficulty arises. There is the risk of having an abstract philosophic category of matter in general and another of the different types of material beings, and of falling into the error which contemporary Soviet philosophers accuse Aristotle of having adopted.[23] In order to understand their thought one has to unite two affirmations which appear to be mutually exclusive. Their first affirmation is that matter does not exist outside of its specific forms. "Matter is neither distinct nor separated from its concrete existential

[19] *Ibid.*, p. 49.
[20] Kuznecov, p. 261.
[21] Vostrikov, p. 49.
[22] *Ibid.*, p. 46.
[23] I. V. Nikolaev accuses Aristotle of talking about 'matter as such' and, therefore, of reducing matter in the end to an abstract logical form (Nikolaev, p. 67).

forms."[24] A 'matter-in-itself' which is not the matter of a given thing is unreal. But the second affirmation is just as strong as the first and holds that matter is more – or, at least, other – than the sum of its various specific forms. One specific form of matter appears and another disappears, but matter remains. Although contemporary Soviet philosophers do not explicitly use it, the Aristotelian notion of *transcendental* would be most useful for explaining what they understand by matter. Using their own terms we have often written 'the concrete forms and types of matter'. But this is improper since matter is not a *genus*. Mitin says so explicitly: "The concept of matter is the most general concept. All that exists represents the different modes of being of matter; it, thus, cannot be understood as the part of a *genus*."[25]

These philosophic analyses, of course, go beyond anything to be found in 'vulgar materialism'. Soviet orthodoxy has the right to claim that dialectical materialism's doctrine on matter is original and the originality is even clearer when they turn to describe the essential traits of matter.

B. THE ATTRIBUTES OF MATTER

Matter is always in movement; it is unlimited in space and time; therefore, it is infinite and eternal. Whence the conclusion that it is uncreated and indestructible. All these characteristics are to be found in Engels and Lenin but there is a new question that must be asked: is matter substance?

It will be more convenient to deal with the relations between movement and matter in the next chapter, on dialectical contradiction. All we need know here is that Soviet orthodoxy follows Engels' statement: "Movement is the existential mode of matter. Nowhere and never has there been matter without movement, and there cannot be."[26] Matter and movement are inseparable and form a unity.

The other properties are the attributes which the philosophic tradition used to 'name' God. Matter is said to be infinite, eternal, uncreated. These are the notions used by Aquinas in *De Deo uno*; but, do they have the same content here?

Taking the notion of infinity for a starter, it is obvious that followers

[24] Vostrikov, p. 46.
[25] Mitin, M. B., in *op. cit.*, p. 107.
[26] Engels [1], p. 92.

of Hegel should be accustomed to meeting the problem of the finite and infinite. But, of all the works dealing with the categories, only one deals with the finite and the infinite, and this is on a low level since the author limits himself to discussing the rare texts where Engels and Lenin touch on the subject.[27] We are reminded that the notions of finite and infinite have to be conceived dialectically: the finite is not 'over here' and the infinite 'over there'. "The infinite is a contradiction and it is full of contradictions. There is already the contradiction that the infinite is made up of only finites – but this is the case."[28] But we must ask again what the Hegelian notions on the contradiction of finite and infinite mean in the context of a philosophy of being. For Hegel, the infinite could never be the sum of finite realities.

But the infinite discussed by contemporary Soviet philosophers is precisely the totalisation of finite realities. Having described the complexity of the forms of matter, Ruzavin concludes: "These facts show that nature – taken as a whole or as parts – is infinite."[29] Matter is not infinite in its concrete realisations, since each has only a limited, finite, number of properties, but it is infinite in itself. "Science and scientific philosophy reflect the world as it really is. Each single thing has a beginning and an end but the universe is infinite in space and in time."[30] This comes to say that each material being is obviously a finite being but that matter is infinite. Which is quite puzzling since contemporary Soviet philosophers do not recognise the existence of matter outside of its specific forms of realisation. And, if one grants that this is accurate, the conclusion must be that the infinity of matter is purely abstract and formal and in no way a concrete infinity. When Soviet orthodoxy concludes from the finite character of the many material beings to the infinity of the world as a

[27] Ruzavin, G. I.: 'Konečnoe i beskonečnoe', in *Voprosy dialektičeskogo materializma*, pp. 118–137. See also: Meljuxin, S. T.: *Problema konečnogo i beskonečnogo*, Moskva 1958; Sviderskij, V. I.: 'O dialektiko-materialističeskom ponimanii protivorečivosti', *Vestnik LGU*, 1956,5. Karmin, A. S.: 'O dialektiko-materialističeskom ponimanii beskonečnosti', *Vestnik LGU*, 1959,5, 30; 'Beskonečnost'' in the *Filosofskaja enciklopédija*.

[28] Engels [1], p. 84.

[29] Ruzavin, *op. cit.*, p. 132.

[30] Pavelkin [2], p. 38. A. Bobin deduces the infinite from the *substantial* character of matter. "Logically, the infinity of the material world (under its three aspects) can be considered the consequence of the substantial character of matter" (*Filosofskaja enciklopédija*, vol. I, p. 154).

whole, it is difficult to avoid the conclusion that they are committing the classical sophism of going from the abstract to the concrete and from the possible to the actual. As we noted above, contemporary Soviet philosophers make the category of matter a transcendental. But what would one have to say of a Thomist who called his concept of *ens commune* infinite? Lenin himself wrote: "... the possibilities of idealism [= religion] are already given in the first, elementary abstraction."[31] Attribution to a category of a perfection that does not exist in the real is the essence of idealistic abstraction.

It is easy to find the cause of this error: Soviet orthodoxy has again allowed itself to be drawn on by Hegel. It is well known that Hegel is considered a mystificationist because he put the infinite in the absolute idea. "Hegel's approach to the problem of the infinite is invalidated by his erroneous idealist position. He considers the categories of the finite and infinite not as reflections of the objective aspects of the real world but as determined aspects of the development of the absolute idea."[32] But, Ruzavin thinks it possible to consider the categories of the finite and the infinite as properties of the real, while retaining the Hegelian structure of the dialectical relation between the finite and the infinite. It is here that the criticism of Hegel does not go far enough. From the instant that the Soviets put the category of the infinite into the positivity of natural being, this notion of infinite becomes abstract or changes content and becomes false infinity. As a matter of fact, 'false infinity' is the case here. For contemporary Soviet philosophers the infinity of matter is the infinity of a 'summing up', a sort of recapitulation which is never finished. It is the indefinite and not the infinite, i.e., the indefinite character of mutations which follow mutations. "Thus, to correctly understand the categories of the finite and infinite, one has to admit the dialectical principle of evolution, according to which the infinite is 'an infinite process, endless in space and in time'."[33]

[31] Lenin [4], p. 289.

[32] Ruzavin, *op. cit.*, p. 128.

[33] *Ibid.*, p. 129. Contemporary Soviet philosophers do not agree that their theory comes down to false infinity. Bobin writes: "Infinity is not the sum of finite parts" (*Filosofskaja enciklopédija*, vol. I, p. 158). That it is not, he says, is due to the fact that each finite being is integrated into an infinite ensemble. But he does not see that even if it is true that the sum of finite parts is qualitatively different from the sum of the parts taken separately, this does not justify the assertion that this whole is infinite.

Pavelkin answers the objection of those he calls the theologians, but it is an argument also brought by the philosophers. Their argument is that science deals with calculations and measures which can only apply to a finite object. Pavelkin answers that science deals not only with finite objects but also with the infinite number of relations between various objects. He adds that an object, even taken in isolation, has an infinite character. This is Lenin's thesis on the inexhaustibility of matter and of material particles: "The electron is just as *inexhaustible* as the atom: nature is infinite...."[34] It is obvious that such statements have sense only if 'inexhaustible' means 'indefinitely knowable'. It the electron were infinite and the neutron infinite the philosophical absurdity of multiplication of infinites becomes too evident.

Dealing with the infinite requires the preliminary solution of two problems: a careful distinction between the infinite and the indefinite; and the elaboration of a general theory on the finite character of beings. Soviet orthodoxy has failed in this and suffers from a consequent ambiguity. Just as billions of repetitions cannot provide logical necessity, so indefinite succession of the concrete forms of matter cannot provide the infinity of matter.

The same ambiguity exists in the contemporary Soviet theory of eternity as an attribute of matter. "It [matter] is eternal in time and infinite in space. It has always existed, exists now and will always exist."[35] Pavelkin says: "Each singular thing has a beginning and an end but the universe is infinite in space and in time."[36] This is the sole definition of eternity offered by the Soviets: eternity is temporal infinity *a parte ante* and *a parte post*. Eternal is reduced to having neither beginning nor end. But, our philosophic tradition since the time of Plato has accustomed us to an infinitely deeper notion of eternity. Thinkers as different as Spinoza and Aquinas agree that eternity "... cannot be explained by duration or time, even if duration is conceived as having neither beginning nor end".[37] Between the eternity of classical philosophy as a *nunc stans* and the eternity of contemporary Soviet philosophy as a lasting time, there is the same difference as that between the infinite and the indefinite.

[34] Lenin [1], p. 240.
[35] Xasxačix, p. 16.
[36] Pavelkin [2], p. 38.
[37] Spinoza, p. 38.

Since matter is eternal, contemporary Soviet philosophers conclude that it is uncreated. Having said that matter is eternal, Xasxačix adds: "It cannot be destroyed or created."[38] This is why the question on the origin of the material world is the model of the idealist or religious question: such a question has no real meaning. The only serious object of study is the transformation of the concrete forms of matter. "Thus the question on the origins of the world does not consist in asking who created the world and how but in asking how and through which material forms, in the actually existing world, the real beings around us have become what they are now."[39] Eternally existing matter is uncreated.

But, that the world has always existed and always will does not mean that it is not created. This point was thoroughly discussed in the Middle Ages but contemporary Soviet philosophers seem to be unaware of the fact. The only proof they offer for the eternity and uncreated-ness of the world is drawn from physics. From the theory of the conservation of energy, they draw the philosophic conclusion that nothing is created, nothing lost, everything changes. "Thus when a thing disappears it is replaced by another so that no particle of matter disappears; nothing is annihilated. On the other hand, it is impossible that the smallest bit of being come out of nothing."[40]

This text comes from *Osnovy*, a book for students, but the more serious works are no more explicit. One would expect discussions like those where Bergson shows that the idea of nothing is a pseudo-idea and this would be most normal since Marx himself devoted a passage in *Philosophic-Economic Manuscripts* to the refutation of the idea of creation. Marx' demonstration is different than but similar to that of Bergson. Marx says: To the question "... 'who created the first man and nature in general?', I can only answer that this question itself is a product of abstraction. ... When you pose the question on the creation of man and nature, you abstract from man and nature. You assume that they are not and ask that one prove that they are."[41] Marx stresses in his own way that the notion of creation is a 'pseudo-idea' because being is. The nothing of being is a 'product of abstraction'. However, this text is never quoted by

[38] Xasxačix, p. 16.
[39] *Estestvoznanie i religija*, p. 33.
[40] *Osnovy*, p. 121.
[41] Marx [5], pp. 97–99.

contemporary Soviet philosophers.[42] They affirm that nature is uncreated but they do not try to give philosophical reasons; their reasons are scientific. That there is no creation because of the law of the conservation of energy is a vulgar positivism that Marx always rejected.

However, when it comes to deciding whether or not matter is a substance contemporary Soviet philosophers are more adventurous and this is at present one of the 'disputed questions' of Soviet philosophy.

Lenin did not like the word 'substance' and preferred that of 'matter'. But in his 'Summary of the Science of Logic of Hegel' he notes: "On the one hand, one must push knowledge of matter up to knowledge [the concept] of substance in order to find the causes of phenomena. On the other hand, the real knowledge of the cause is the penetration of that knowledge which proceeds from the surface of phenomena to substance."[43] From the context one can see that substance is here taken as essence. Lenin's opposition, phenomenon–substance, exists in contemporary Soviet philosophy as phenomenon–essence. Chambre can write that Lenin "... leaves unanswered the question as to whether matter is or is not substance".[44]

Lenin does not have a clear answer because he does not try to define the notion of substance. The problem, therefore, is one of forming a clear idea. One can say that the philosophic tradition has taught us to see substance as that which supports the accidents or properties of a being, and as that sort of ontological core by which a being has autonomous existence. Those contemporary Soviet philosophers who refuse to admit that matter is substance argue that this would exclude change. Substance implies immutability. For example, in the *Short Philosophic Dictionary*, we find: "Substance (Latin: *substantia*). In pre-Marxist philosophy, the immutable support of all that exists, in contradistinction to the changing properties of things."[45] If this is the real definition of substance, it, of course, has

[42] In general, the *Economic-Philosophic Manuscripts* are known to contemporary Soviet philosophers but not very closely studied. There is a Russian translation, however, as well as one interesting commentary. Cf. Pažitnov, L. N.: *U istokov revoljucionnogo perevorota v filosofii*, Moskva 1960.

[43] Lenin [4], p. 131.

[44] Chambre, p. 262.

[45] *Kratkij filosofskij slovar'* (French ed.), p. 587. In addition to this infinity in space and in time, contemporary Soviet philosophers sometimes talk about the infinity of the movement and of the properties of matter. (Cf. *Filosofskaja enciklopédija*, vol. I, p. 154.)

no place in dialectical materialism. "In opposition to metaphysical materialism, dialectical materialism rejects the idea of a 'final and immutable essence of things', the idea of an absolutely simple substance. ... In nature there is nothing immutable and, therefore, no absolutely simple substance."[46]

In fact, if the analysis of matter led to the discovery of a *substratum*, this would imply that matter is not infinite since the mind would eventually find a 'basis for things'. But a basis for things is irreconcilable with Lenin's thesis on the 'infinity of matter in depth'.[47] Kedrov has clearly seen this: "The relations between things and the ways in which they change are infinite. Equally infinite is the number of degrees which lead to the depths of things, to the depths of their essences. ... No matter how simple and elementary a material particle might seem to us, it is in reality never absolutely simple or elementary."[48]

All these Soviet philosophers think that substantialism leads to a 'metaphysical' and anti-dialectical view of the world and of things. To conceive matter as a substance is to submit it to the category of the static, whereas its fundamental property is movement. In any case, conceiving matter as substance leads to idealism – which is more serious. The accepted Soviet view is that there are only two basic types of philosophy: idealism and materialism – there is no place for substantialism. Substantialism is an idealism because the 'thing–in–itself' of Kant appears as soon as one begins to talk of substance. Though they do not say so, these Soviet philosophers have the feeling that matter-substance is a disguised form of matter–in–itself, i.e., matter as such. This would imply an idealising abstraction and they prefer dialectical materialism to a materialism of substance.

Other Soviet philosophers – Tugarinov being the most eminent – do not think such a choice is obligatory. To admit the existence of substance by no means implies rejection of the dialectical character of matter. Tugarinov begins with a careful definition of the notion of substance. This category had already been manhandled by idealist philosophy and rejected by scientific positivism.[49] Our author reacts to this and opposes the differ-

[46] *Osnovy*, p. 117.
[47] Lenin [4], p. 93.
[48] Kedrov [2], p. 45.
[49] Tugarinov, p. 33.

ent representatives of objective and subjective idealism, including Hume, Kant, Meyerson, and Cassirer. The common error of these thinkers was the dissolution of substance in relations. What is substance for Cassirer? "A unity of order and of functional coordination."[50] The only philosopher to have really solved the difficult problem of substance was Aristotle.

It is from Aristotle, abundantly quoted, that Tugarinov takes his definition of substance. This Marxist agrees not only with the author of the *Metaphysics*, but even with the explanations of the medieval theologians on the famous text which describes substance as the support of the properties and relations. "The object (the being) cannot be reduced to its properties. ... It is the unity of the properties, the stable principle under the changes of properties, the bearer of the properties."[51] This is exactly the *quod stat sub accidentibus* of the scholastics. But, just as the scholastics were not satisfied with this analysis which remains close to the nominal definition (*sub-stantia*), so the professor from Leningrad tries to determine the specific character of substance as bearer of accidents. Again Tugarinov agrees with the scholastics that substance is that which makes a being a reality which exercises existence autonomously: "It [the object] is, above all, a separate being, an individual substance, therefore, concrete...."[52]

We have called attention to the identity of view with Aristotle and scholasticism not so much to point out the rarity of such an agreement as to avoid the necessity of a longer analysis. We have seen that some contemporary Soviet philosophers consider substance to be a 'metaphysical' category: it is the most dense of metaphysical categories and the least capable of that 'elasticity' which for Lenin was one of the essential traits of the dialectical categories. Tugarinov's answer is simple: deny substance and you deny philosophy. Without substantial beings everything is reduced to relations and, therefore, substance is the only protection against idealism. And it is not an arbitrary projection since it is the necessary conclusion of a healthy realism. "The negation of objects as the bearers of properties contradicts ordinary experience since no one has ever seen a property existing by itself."[53]

[50] *Ibid.*, p. 31.
[51] *Ibid.*, p. 27.
[52] *Ibid.*, p. 29.
[53] *Ibid.*, p. 32.

Is the category of substance to be applied to matter? Replying in the affirmative, Tugarinov points out that there are three fundamental categories: nature, matter, and substance. But, what is the relationship between these notions and which best shows us the nature of the real? Being is first seen as nature. This "nature is the beginning and the end of materialist philosophy. ... For materialism, there is nothing but nature."[54] But only the category of matter allows us to penetrate the essence of nature. "Matter is not a determination external to nature but its intrinsic determination."[55] Which means that the concept of matter is much more explicit than that of nature. Finally, our knowledge of the material real becomes genuinely complete when it is grasped as substance. Matter is substance. "... the third aspect is that matter is substance, it is the *substratum* of movement and of change, it is not only that which is general in beings but also the foundation of all things."[56] Because matter is not created but exists by itself (*per se* and *a se*), simple intellectual honesty demands that we recognise it for what it is, i.e., substance.[57]

Tugarinov is not playing philosophic games when he defends the substantiality of matter. He simply believes that it is impossible to conceive the ultimate basis of natural beings without the notion of substance. Which tends to show that any true realism is a substantialism.

C. THE MATERIALISM OF PRACTICE AND THE MATERIALISM OF MATTER

Non-Communist philosophers – Marxist or other – are generally distracted and irritated by the thesis of official dialectical materialism which we have just studied. And when a Lefèbvre challenges the contemporary Soviet interpretation he is called a revisionist. For Lefèbvre it is the Soviets themselves who are revisionists. The connection between the doctrine of Marx and that which has been codified after Engels and Lenin is so tenuous that one can hardly call one the revision of the other. 'Diamat' is a new doctrine. Lefèbvre writes: "Neither Marx nor Engels

[54] *Ibid.*, p. 44.
[55] *Ibid.*, p. 48.
[56] *Ibid.*, p. 49.
[57] "To the extent that matter means the unity of substance which is *causa sui* (cause by itself), its development and its movement can in no way be limited" (*Filosofskaja enciklopédija*, vol. I, p. 154).

(before his death and the end of his work) thought of replacing ancient philosophy with a new philosophy which would be called dialectical materialism...."[58] This new doctrine is a naive form of materialism. Soviet orthodoxy forgets that "the essence of materialism is not the affirmation that everything is matter, but rather a metaphysical determination which holds that each being appears as the matter of a given work".[59] This innovation is, then, a *lapsus* of Marx who "... experiencing alienation, touches an essential dimension of history".[60] This text of Heidegger contains the bacic reproach of the non-Communists against Marxism-Leninism. For Marx, materialism is not a speculative thesis on the ontological primacy of matter but the suppression of alienation through social practice.

In its long article on matter the orthodox *Short Philosophic Dictionary* of Rozental' and Judin does not even mention alienation. But, as Lefèbvre rightly says: "The notion of 'matter' resolves itself into that of *practice* and *appropriation*...."[61] As for Lenin's matter in *Materialism and Empirio-Criticism*, it is "... a sort of *X* (an unknown) which has to be posited (or refused) in our affirmations".[62] There is no objective, scientific evidence to oblige us to accept it. It is a postulate so that the idealist who refuses it "... does not therefore run the risk of absurdity and incoherence".[63] There is, therefore, no reason to separate philosophers into two camps, the idealists and the realists.[64] Marx' real contribution was to have gone beyond the ruinous dualisms of object and subject, of man and nature, of being and consciousness, etc., which had brought traditional philosophy to a standstill. But, the young Marx succeeded only by eliminating speculative philosophy, i.e., by treating philosophy as what it really is, one of the forms of ideological alienation.[65] Having shown that the revo-

[58] Lefèbvre [5], vol. I, p. 33.
[59] Heidegger, p. 99. Marcuse has the same idea: "The division (of Marxian theory into dialectical and historical materialism) would have been meaningless to Marx, for whom dialectical materialism was synonymous with historical materialism" (Marcuse, pp. 144–145).
[60] Heidegger, p. 99.
[61] Lefèbvre [5], vol. I, p. 33.
[62] Lefèbvre [3], p. 100.
[63] *Ibid.*, p. 102.
[64] Lefèbvre, H.: 'Le marxisme et la pensée française', *Les temps modernes*, 1957, 137/138, 104–137.
[65] Calvez, pp. 103–157; Axelos, pp. 135–194 and 289–293; Lefèbvre [5], vol. I, pp. 15–31.

lutionary dialectic is neither ontological, nor logical, nor epistemological, nor spiritualist nor materialist, Axelos concludes: "The vagaries on the question of the primacy of *matter* or of *spirit* (ontological materialism and spiritualism), on the opposition between *reality* and the *idea*, being and thought, experience and reason (realism and idealism, logical empiricism and logical rationalism) do not concern Marx if ever they have bothered a thinker worthy of the name."[66] This is a rather harsh summary of the criticisms by non-Communists of the ontology of official dialectical materialism.

Obviously, Soviet orthodoxy rejects these objections which aim at forcing it to choose between the materialism of the ontological primacy of matter and the materialism of social practice. For them, one does not exclude the other. Contemporary Soviet philosophy is neither solely dialectical materialism (diamat) nor solely historical materialism (histomat) but the dialectical unity of the two. They all agree on this.

However, as soon as one tries to analyse more closely the dialectical relation between diamat and histomat one sees that it is not easy since the Soviets themselves have quite divergent positions.

The most widespread opinion is that of the 'anti-revisionists'. The revisionists want to separate histomat from diamat and declare the latter useless. The anti-revisionists do not take a diametrically opposed position but they do affirm that dialectical materialism is the cornerstone of Marxist-Leninist philosophy. Of course histomat remains a part of this philosophy. "We must now study the essential problems of historical materialism – the science on the general laws of the development of human society – which is an integral part of the Marxist *Weltanschauung*."[67] But it is a secondary and derived portion which necessarily presupposes dialectical materialism. Since all is matter and social life is only a special form of matter, one must begin by studying the general laws of matter and of its becoming before applying them to social being. Gazenko's *Lessons on Historical Materialism* begins with: "Historical materialism is the direct and immediate extension (*prodolženie*) of dialectical materialism. Historical materialism is made possible by the discovery and elaboration of the laws and the theses of dialectical materialism."[68] At least this is

[66] Axelos, p. 188.
[67] *Osnovy*, p. 337.
[68] Gazenko, pp. 12–13. The official *Filosofskaja enciklopédija* has the same idea. The

clear: Marx could not have written *Capital* if he had not first thought over the 'three laws' explained by Engels in *Dialectic of Nature*. To parody a famous text: "The affirmation of the materialist ontology is the necessary presupposition for the critique of economic alienation!" *Osnovy* asks how one can reach the heart of phenomena, processes and laws of social life: "It is possible, as we will see below, only through the application of philosophic materialism and dialectical materialism to the analysis of the phenomena of social life, through the application of dialectical materialism in research on society."[69]

The revisionists said that human practice could go on without reference to the primacy of matter over consciousness and without deciding between materialism and spiritualism. The answer to this is that revolutionary practice is revolutionary because it extends to society philosophic materialism and the laws of the dialectic.[70] Of course, as applied or extended to society the universal laws of matter take on a specific character. But, even then, when these philosophers talk about a dialectical bond between materialism and social practice, it is obvious that the bond is only vaguely dialectical. The action of revolutionary practice on matter or nature is not immediately apparent because one first assumes nature and its laws (the object of an ontological analysis) and because human practice and its laws are possible only on the basis of already acquired knowledge. The connection between nature and man which – according to Marx – is based on work, i.e. the *sinnliche menschliche Tätigkeit*, is abandoned.

There is an as yet timid but growing reaction in the Soviet Union. Of course, those contemporary Soviet philosophers who criticise the view we have just examined do not, thereby, rejoin the revisionists. Against these latter they defend the rights of dialectical materialism. In so doing they do not believe it necessary to first posit matter and then pass to the study of society. In fact there is no precedence in the relations between

author presents histomat as an extension of diamat. Of course, near the end of the article he admits that without histomat there would be no diamat but the context indicates that what he means is: without histomat, i.e., without the knowing subject, there would be no science of diamat. Obviously! (*Filosofskaja enciklopédija*, vol. I, p. 491).

[69] *Osnovy*, p. 338.

[70] "It is by extending philosophic materialism and the materialist dialectic to the knowledge of society that one overcomes the partial and limited character of old, pre-Marxist materialism. And philosophic materialism takes an active and revolutionary turn" (*Osnovy*, p. 344). The same idea is found in *VF*, 1959,5, 33–47.

diamat and histomat. It is not matter first, then society, and the affirmation that histomat is an integral part of Marxism is not enough. One has to show "... wherein consists the unity of dialectical and historical materialism...".[71] Panjušev rejects the theory viewed above as totally insufficient: histomat is not the *extension* of diamat. It is not an extension or an application for the simple reason that without histomat there would not even be a diamat. This is something new. "Can one provide a dialectical-materialist solution of the basic question of philosophy without recourse to historical materialism? Of course, not."[72] And: "Thus historical materialism is a part of Marxist-Leninist philosophy not only because it is an extension of materialist principles to the study of social life but also because without it and outside of it dialectical materialism could not exist."[73] Histomat arises in the very heart of diamat. Practice alone is the basis (*obosnovanie*) and directive principle of Marxist philosophy. Pažitnov says that it is because they forget this that contemporary Soviet philosophers provide an incomplete view of the dialectic and of its laws.[74]

If this latter view comes to dominate in the Soviet Union it will considerably lessen the distance between Western and Soviet interpreters of Marx. But this distance could not be eliminated since Soviet orthodoxy will never agree that philosophic discussions on the primacy of matter over the Logos are 'vagaries'. Whether the natural world is its own basis or whether, on the contrary, one must find it a basis in a transcendent principle is and will probably remain one of the supreme philosophic questions. Axelos calls unworthy of serious thought that which Plato in the *Sophist* took up when he opposed the 'Sons of the Earth' to the 'Friends of the Forms'. That Soviet orthodoxy in its suppression of philosophy through its realisation does not dodge these questions is to its credit.

As a matter of fact, those 'revisionists' who try to solve all these questions by an insistent reference to practice are avoiding the problems

[71] Panjušev, p. 187.
[72] *Ibid.*, p. 190. Panjušev thus tries to answer Lefèbvre's important question: "If the dialectic comes from the study of nature, how and why is it revolutionary? If it comes from revolutionary criticism and from historical analysis, how and why is it found in nature?" (Lefèbvre [3], p. 93).
[73] Pansušev, p. 190. See also *VF*, 1960,3, 8–13.
[74] Pažitnov, p. 106.

rather than solving them. For, although human activity explains the dialectical bond between man and nature, it says nothing about the origins of nature. It is too easy to say that Marx did not take the question up. Do we not find in Marx the famous text on the rejection of the idea of creation? And it is precisely there that he takes an openly naturalist position to defend and justify the ontological primacy of material being, in order to invalidate a recourse to God the creator.

The insistence of contemporary Soviet philosophy on the priority of matter over consciousness aims at eliminating all speculation on a transcendent. Identifying matter and being, some have called Marxism-Leninism a realist philosophy.[75] But realism is not explicit enough to eliminate idealism and spiritualism. Whence the recourse to the category of matter:[76] it is a materialism which is militantly anti-theistic. "Materialism deepens knowledge of matter and of nature, sending God and the philosophic scum who defend Him to the garbage heap."[77] It would seem more Marxist to send the scum to the garbage heap by showing that religious ideology is the superstructure of an economy which is still subject to alienation. But it is obvious that the scientific atheists of the U.S.S.R. who maintain that religion results from the dissatisfaction of those living in a society with social classes would have a hard time explaining that social classes have been abolished in Russia. This is probably why they put matter at the center of their fight against religion (and the Logos). It is this category of matter which 'cannot grow old' that is used to refute the 'scum'.

These clever people – the theologians and idealist philosophers, especially the Thomists – defend the theory of double truth: one is natural, the object of philosophic and scientific enquiry; the other is supernatural, coming to man in divine Revelation. But, writes Pavelkin: "The theory of 'double truth' is radically false because there are not two worlds but only one. The unity of the world is its materiality, i.e., the fact that it exists independently of consciousness."[78] The thesis on the primacy of matter

[75] Wahl [1], p. 689; Falk, p. 44; Bocheński, p. 72.

[76] Arxipcev [2], pp. 146–167. "The essential and decisive problem – the fundamental question of philosophy – has the following alternative form: either materialism or idealism. There is no third solution" (Ojzerman, p. 142).

[77] Lenin [4], p. 142.

[78] Pavelkin [2], p. 35. Soviet orthodoxy does not compromise on the primacy of being over knowledge. For not taking it seriously in 1924, Lukács was condemned. *Destruction of Reason*, one of his last works, had the same result. (Cf. *FN*, 1959,2, 134–135.)

over consciousness is everywhere repeated and everywhere it is an affirmation of atheism. This is why it seems so essential to Soviet orthodoxy.

Since our object here is only to show what contemporary Soviet philosophy is at present we are not going to bring out all the arguments which a spiritualist philosophy has at its disposal. However, we will here outline a critical analysis of one of Soviet thought's favorite procedures. It will be an illustration of Merleau-Ponty's judgement in *Adventures of the Dialectic*. He writes that Leninist orthodoxy is "... this thought without honesty which one never completely grasps; this unstable mixture of Hegelianism and scientism which enables orthodoxy to reject in the name of 'philosophic' principles all that the human sciences have tried to say since Engels and, nonetheless, to answer 'scientific socialism' when one talks about philosophy."[79] This procedure is the passing from one level to another, from that of science to that of philosophy, from that of a scientific epistemology to that of a philosophical epistemology. The notions of infinity, eternity, etc., which contemporary Soviet philosophers attribute to matter are not philosophic notions but notions which remain in the realm of science. The infinite remains the indefinite; eternity is time which lasts. Just as scientific positivism has no need to ask itself about the existential conditions of its object, so Soviet philosophy has only to affirm that matter is. It is true that at this level one can give a philosophic version of the scientific law of the conservation of energy. But one has to be aware that this version is positivist. Meyerson, Poincaré, Bachelard and others have clearly described what scientific rationalism is. One can maintain that this interpretation of nature is self-sufficient and can reject as naive the questions and answers of classical ontology on being, causality, creation, spirit, or matter. The philosopher who wants to remain on the level of empirical analyses of 'beings' and to refuse to ask about the being of that which exists or about why anything exists at all, is deaf to classical ontology. The rational explanation of the universe has its necessary foundation in the primitive finiteness of nature.

But such a philosopher has to know that because he does not pose the question on the being of what is, he cannot pretend to provide an answer. But this is precisely what the contemporary Soviet philosophers

[79] Merleau-Ponty, p. 89.

do. Their conclusions go far beyond their premisses. Classical ontology is sometimes naive but it is also conscious of its own vulnerability. It admits that it is almost as difficult to make matter come out of the spiritual Logos as to make the Logos come out of matter. It is open to discussion but when a philosophy wants to solve the problem by appeals to science, it is only natural that it be called 'scientism'. Dialectical materialism has to choose. Either it wants to establish the uselessness and even the impossibility of a Logos prior to matter by means of disalienating practice: then, because it is 'dialectical', this materialism is a novel historical fact. Or, dialectical materialism supposes the ontological primacy of matter; then it will take more than the term 'scientific socialism' to give it any real originality. *Future of Science* was not published yesterday!

Even if Marxism – forgetting simplist compromises with science – wants to remain on the level of practice, it should not be surprising that the Marxist-Leninists want to write an ontology. Of course, a philosophy like that of Hegel is not based on an ontology. But contemporary Soviet philosophy is more in the line of practical reason than in that of dialectical reason. Even if it is not – like Kantianism – an ethical system based on postulates, it is nevertheless in the line of practical reason because it is a humanism which teaches that which man must do in order to act in conformity with his essence or to regain it when he has lost it.

And because this Marxist humanism is a naturalism, because – by the admission of Marx himself – "nature is the inorganic body of man", it is inevitable that nature be an object of study of Marxism. Both Engels' *Dialectic of Nature* and Lenin's *Materialism and Empirio-Criticism* are to be found *in potentia* in Marx' naturalistic humanism. Normally philosophers begin with their metaphysics, the principles of which then serve to base their moral system. The critique of speculative reason precedes that of practical reason. For Marxism, it is practical reason (suppression of alienation through practice) which came first. Speculative reason – i.e., contemporary Soviet ontology – was developed after practical reason. This is why some critics see it as an added appendage. And this it would be – in our opinion – if Marxism were a philosophy of dialectical reason: i.e., if, for Marxism, every objectification were an alienation. But we already know that contemporary Soviet epistemology is a realism. By studying the 'dialectical contradiction' we can see even better that objectification is not an alienation for Leninist orthodoxy.

CHAPTER VI

DIALECTICAL CONTRADICTION

In contemporary Soviet treatises three distinct and substantial chapters follow the study of the category of matter. They deal with what since Engels have been called the 'three laws' of the dialectic of matter: the unity and conflict of contraries; the transition of quantity to quality; the negation of the negation. Since they form a whole we will deal with them in a single chapter.

There are normally two large sections in any ontology: a general theory of being, and a general theory of action. The three laws of Engels are the fundamental principles of the theory of action of Marxism-Leninism. Not that one should separate being from action as was the case in some classical ontologies. For contemporary Soviet philosophy, action – movement in its greatest generality – does not come after being, because matter is immediately, *per se primo*, in movement. Even those Soviets who hold that matter is a substance clearly defend the thesis on the universal mobility of nature. For Leninist orthodoxy Parmenides is the model of absolute error. It is to Heraclitus that one must turn in order to understand what has gone on in Russia since Engels. The great difficulty of the 'dialectic of nature' is that it contains two quite different elements – which some critics call contradictory: on the one hand, the recognition of a universal mobility of nature as understood by Darwinism and contemporary theories of evolution; on the other, the philosophical explication of this scientific fact of evolution by recourse to 'three laws' drawn rather arbitrarily from Hegel and supposedly given a materialist content. The conflict which we have noted on the level of knowledge when dealing with the dialectification of the categories is even stronger on the ontological level. It is the famous tension between materialism and the dialectic (the 'dia-mat' of Lefèbvre) which so many have noted in contemporary Soviet philosophy. The Soviets and their opponents are fighting about the meaning of the word 'dialectic'. The history of philosophy shows that from Plato to Hegel this word has had different contents. Throughout, however, it has always maintained the connection with the Logos. But,

since Engels, the dialectic has been 'naturalised' and it is this that causes the amazement of the critics. "This is the essential paradox of Marxism, that it extends to matter a process of the spiritual order."[1] For Merleau-Ponty this dialectical materialism is a sort of animism. "This mixture of dialectic and positive spirit puts into nature the modes of being of man: this is just what magic is."[2] Is a more basic condemnation possible?

Even a philosopher who cannot be suspected of taking Engels lightly writes that "... we do not refuse *a priori* the possibility that one day a concrete dialectic of nature will reveal itself...".[3] But, for Sartre, this dialectic of nature remains a metaphysical and extra-scientific hypothesis. Both scientists and philosophers who are partisans of Marxism-Leninism continually repeat that science makes no progress, which does not confirm the truth of dialectical materialism. Terleckij, who is a leading physicist, sums it up as follows: "The recently discovered laws which rule the most simple forms of matter have not only confirmed and exemplified in a new way the most general theses of dialectical materialism but also they prove that the principle of the unity of contraries and the principle of the unity of the material world are basic principles of the physics of elementary particles. This confirms Lenin's prediction that physics engenders dialectical materialism."[4] However, recent works show that there are serious disagreements even within the orthodox bloc. These disagreements have to do with the very fundamental category of 'contradiction'. All contemporary Soviet philosophers – as we will see below – affirm that the genuine materialist conception has to be dialectical and that the genuine dialectical conception has to be materialist. In other words, they all defend the existence of contradictions in the interior of material beings. But analysis shows that 'contradiction' is understood in various ways. Before dealing directly with the three laws we will have a brief look at their scientific basis, i.e., the theory of evolution.

A. MATTER AND MOVEMENT: EVOLUTION

Dialectical materialism, which calls itself a scientific philosophy, de-

[1] Etcheverry, p. 255.
[2] Merleau-Ponty, p. 87.
[3] Sartre, vol. I, pp. 129–130.
[4] Terletski (Terleckij), p. 29.

scribes itself as 'generalizing' the content of experience. And, if there is an evident fact, it is the universal mobility of the material world. We find in *Osnovy*: "Everything in the world around us, from the simplest elementary particles to the immense planets and stars, is subject to movement and change."[5] Following Engels, Soviet orthodoxy provides the following philosophical formulation of this fact: "There is no matter without movement. Matter is inseparable from movement. In other words, movement is the eternal mode of being [*forma bytija*] of matter."[6] Thus, movement is an intrinsic property of matter.

But permanence and rest are also data of experience and materialism does not try to deny it. Movement and rest divide being but they do so unequally. Which means that these two states of matter are not found on the same level. Movement and rest form a dialectical unity; they are opposed contraries. But their opposition is only relative and not at all absolute. Rest is only a moment in the universal mobility of all beings. "Rest and equilibrium are only relative since they involve only a single material object but not matter in its totality."[7] Permanence and apparent immobility should not be allowed to hide the profound fact of the general movement of nature.

There is no matter without movement. But the contrary is also the case: there is no movement without matter. One still finds traces of Lenin's dispute with Ostwald and other 'energicists' who thought that matter changes into energy. A mass or force which is not the mass of matter is, for contemporary Soviet philosophy, a vagary. Einstein's theory of relativity was condemned for a long time because – among other errors – the Soviets thought that it led to movement without matter.[8] This campaign against idealism leads the Soviets to accuse such innocents as Bergson of idealism.[9]

Since movement is inseparable from matter, it must follow that movement has all the properties and attributes of matter. It is eternal, un-

[5] *Osnovy*, p. 122.
[6] *Ibid.*, p. 122. "The inseparability of matter and movement means not only that matter cannot exist without movement but also that between each form of movement and material objects ... there is a completely determined correspondence, a determined intrinsic relation" (*Osnovy*, p. 123).
[7] *Osnovy*, p. 124.
[8] Cf., e.g., Omel'janovskij [2], pp. 143–162, and Štejnman, pp. 163–173.
[9] Leonov, p. 440.

created, indestructible, etc. And our remarks about matter, of course, are applicable to movement. The reader will have already noticed that contemporary Soviet philosophers understand the notion of movement in its most general and universal form. "By *movement* dialectical materialism means not only local motion but any change at all."[10] There are five general types of movement: mechanical, physical, chemical, biological, and social. Each of these, of course, includes a great number of sub-movements. Like matter, movement is also inexhaustible. So that "by penetrating ever deeper into matter, our reason can continue to discover new forms of movement...".[11]

But recognition of the multiplicity of the forms of movement is not the most important aspect. What is essential is the discovery of the internal bond which mutually connects these movements. In the past century our view of the world has been profoundly modified by the transformist theories. Hyppolite notes that "... Marx, for example, who thought Hegelian, at the same time asked of Darwin a philosophy of life and nature which was quite different from Hegelian philosophy".[12] In his 'On the Dialectic' Lenin distinguishes two ideas of movement which imply two radically opposed *Weltanschauungen*: "Two basic conceptions (or two possibles? or two conceptions noted in history?) of movement (of evolution): development as diminution and augmentation, as repetition, and development as unity of contraries...."[13] Lenin goes on to say that the latter conception is the only vital one and the only one that conforms to a correct notion of reality. It is that which Darwin perceived and described with such mastery. A philosophy which wishes to be up with science can no longer espouse a theory of cyclical movement which reduces movement to local motion, its most simple and impoverished form. Contemporary Soviet philosophy not only accepts the evolutionist thesis, but also extends to the totality of the real the biological evolution discovered in the last century. Recalling the first intuitions of his youth. Teilhard de Chardin writes: "It was during my years of theology at Hastings that little by little – less as an abstract notion than as presence – there grew in me, to the extent of occupying the whole of my interiority,

[10] *Osnovy*, p. 122.
[11] *Ibid.*, p. 124.
[12] Hyppolite [2], p. 146.
[13] Lenin [4], pp. 279–280.

the awareness of a profound, ontological, total drift of the universe around me."[14] Leninist orthodoxy adopts just such a perception, not necessarily giving it the same meaning.[15]

Rather than to Lamarck and neo-Lamarckism, from which it takes the theory of the transmission of acquired characteristics, it is to Darwin that contemporary Soviet philosophy turns, And Soviet philosophers are the more anxious to admit their debt to the author of *On the Origin of Species* since they are convinced that – with one or two corrections – his ideas are the same as theirs. "... Darwin's theory has a great role to play in justifying and developing a materialist philosophy, especially dialectical and historical materialism."[16] Three favorite notions of contemporary Soviet philosophy are to be found already in Darwin: the passage from a lower species to a higher; a theory of evolution based on dialectical contradiction; finally, the universal interdependence of beings.[17] The evolution of material nature has direction: it is oriented, going from the less perfect to the more perfect – it is a progressive evolution. Cosmogenesis has its source in itself. The world forms an ordered whole. This is the scientific datum which must be given a philosophic explication.

B. DIALECTICAL CONTRADICTION

The present work is concentrated around the 'categories'. In turning to the study of the three laws of the dialectic we are not departing from our subject-matter since for contemporary Soviet philosophy Engels' laws are the most fundamental categories. Between laws and categories there is no difference of nature: "Thus, in reality, there is no essential difference

[14] Teilhard de Chardin, P.: *La cœur de la matière*, Paris 1950, quoted by Tresmontant, C.: *Introduction à la pensée de Teilhard de Chardin*, p. 26.

[15] Contemporary Soviet thought has not taken Teilhard's thought into account up to now although a Russian translation of *Le Phénomène humain* has been published in Moscow.

[16] Platonov [2], p. 414.

[17] *Ibid.*, pp. 185–245 and 413–418. There is no agreement among the Soviets on the doctrine of Darwin. Some hold that he represents 'vulgar evolutionism' because he bases himself on the principle *natura non facit saltus* in admitting only quantitative changes (Lysenko, T. D.: *Filosofskie voprosy sovremennoj biologii*, pp. 3–16; Prezent, I. I., Kalifman, I. A., in *VF*, 1955,5, 157–168). Others refute this accusation. Darwin rejects the 'catastrophe' hypothesis of Cuvier but his theory of minor variations does not at all exclude the idea of qualitative modification (Platonov [2], pp. 212ff.; Kedrov in *VF*, 1956,6, 149–166).

between the categories and the laws of the dialectic."[18] It is the case, however, that the laws have a greater generality: the laws of the dialectic – or the fundamental categories – are valid for all beings while the other philosophic categories only apply to a specific domain of the real.

But before going into the study of the three laws of the dialectic one must ask why there are only three laws and why just the three that Engels names. Blumberg, one of the critics of Marxism, is tempted to call it pure chance or, in any case, cannot see the necessity of these three laws.[19] In fact, one can justifiably ask if the notion of totality, for example, is not more important than the law of the transition from quantity to quality.

Contemporary Soviet philosophers have been little bothered by this question. They generally are satisfied with following the lead of Engels, who writes in his *Dialectic of Nature* that these are laws discovered by Hegel.[20] It is true that these themes are to be found in *Science of Logic* but it is inexact, in the first place, to pretend that these notions are laws. Bakradze admits this: "... In Hegel there is no theory of laws separate from that of the categories."[21] Also, the description of the categories of knowledge by far exceeds what Engels has retained. In any case, Soviet orthodoxy is convinced that Engels' choice was not arbitrary and even that it was not a choice but a recognition. When Aristotle finds that he needs three principles to explain change and movement, he does not have the impression that he is choosing. This is also the case of Engels, and Kedrov shows how these three laws are both necessary and sufficient for explaining the dialectic. The first law, on the unity of contraries, provides comprehension of dialectical contradiction as the source of movement. The second, the transition from quantity to quality, explains the 'internal mechanism' of change: the dialectical leap resolves the contradiction. The third, the negation of negation, describes the 'trajectory' followed by movement or change: it expresses the resultant of movement.[22]

1. *Preliminary Clarifications*

The dialectic is 'the soul of Marxism' and the category of contradiction

[18] Gorskij, p. 21.
[19] Blumberg, p. 322.
[20] Engels [2], p. 69.
[21] Bakradze [2], p. 274.
[22] Kedrow, p. 69.

is the 'kernel' of the dialectic; which shows the importance of the notion of contradiction for contemporary Soviet philosophy. Marx criticized thinkers who did not succeed in understanding that the 'contradiction is the source of any dialectic'.[23] Lenin decorates his *Philosophic Notebooks* with remarks like: "Properly speaking, the dialectic is the study of contradiction *in the very essence of things*."[24] "The dialectic can be briefly defined as the theory of the unity of contraries. Thereby one grasps the kernel of the dialectic...."[25] It is, however, very difficult to understand exactly what contemporary Soviet philosophers mean by contradiction. The renaissance of Aristotelian studies in Russia has not yet led them to confront their dialectical contradiction with the Aristotelian theory of oppositions. And this is certainly a lacuna since their notion of contradiction is taken from Hegel but certainly cannot be applied to nature with the same meaning that it had in *Science of Logic*. There are so many different notions of contradiction that one does not know where to begin. For some, contradiction is little more than the antagonism of vectors the effects of which are mutually exclusive. For others, contradiction is almost the same as the constitutive relation in the Hegelian sense. Between these two extremes there is place for almost anything. We will begin by pointing out what the contradiction is not.

Replying to critics of Marxism, Štraks, in an article in *Voprosy filosofii*, points out that one should not follow Wahl and Hyppolite in talking about 'tragic contradiction'. These bourgeois authors invalidly 'absolutise' the notion of conflict. "In fact, there are no insoluble contradictions."[26]

Bloch provides another idealist revision of contradiction when he denies the existence of contradiction in things claiming that contradiction implies reference to a spiritual principle. This is inadmissible: Bloch is 'voluntarist, mystic and idealist'.[27]

Lefèbvre and Calvez, who put the notion of alienation at the heart of the dialectic, are also idealists and even Kantians. They make two mistakes:

[23] Marx [3], book 1, vol. III, p. 37.
[24] Lenin [4], p. 211.
[25] *Ibid.*, p. 182.
[26] Štraks, p. 82. A. I. Vladimirova reproaches the "Director of the Upper Normal School, J. Hyppolite, with seeing the theme of death as one of the specific characteristics of contemporary philosophy" and finds that J. Wahl "gives a Heideggerian interpretation of Hegel" (Vladimirova, pp. 79–80).
[27] Butenko, p. 150.

that of mistaking a particular problem for a central one; and that of denying the objective character of the dialectical contradiction of nature.[28] Any attempt to reduce the dialectic to alienation is doomed to failure. The tragic dialectic, the voluntarist dialectic and the dialectic of alienation have a common defect; that of trying to reduce the dialectical contradiction to a subjective contradiction.

Contemporary Soviet philosophy holds firmly to the objective character of the contradiction. Having quoted the text where Merleau-Ponty accuses the Soviets of putting the contradiction in being where it is least able to reside, Štraks goes on: "Marxist philosophy has no reason to 'place' the dialectic in the object. Contemporary science does not make a single advance without discovering the objective contradictions of the real."[29] One does not put contradiction in being: one discovers that being is the *locus* of contradictions. That there are contradictions in nature seems so obvious to the Marxists and so obviously not the case to their opponents that each suspects the other of some malicious intent. Lefèbvre thinks that the Marxist-Leninists 'place' contradiction in nature in order then to be able to claim that this very important category is 'scientific'. The Soviets turn the argument around: if bourgeois philosophers are unable to see this evident fact it is because they fear being obliged to recognise the truth of historical materialism and, therefore, of socialism. "The metaphysical theory which denies the internal contradictions of things is widespread in contemporary bourgeois philosophy. The bourgeoisie has no interest in discovering the fundamental contradictions of imperialism."[30] A university text is even more explicit: "This bourgeois philosopher [Sidney Hook] is afraid to recognise the contradictions in phenomena and in the things themselves since the dialectic of the internal development of contradictions in society would engender class-war and social revolution."[31] For the Soviets, bourgeois philosophers are 'metaphysicians' in order not to be 'socialists'.

It is easier to see the function of Leibniz' *vinculum substantiale* than to understand the nature of this *vinculum*. Similarly, although one quickly

[28] "He [Lefèbvre] really shows himself a falsifier when he includes in philosophy the problem of alienation which he considers to be a central problem!" (Butenko, p. 73).
[29] Štraks, p. 74.
[30] Andreev [2], p. 59.
[31] *Osnovy*, p. 246.

comes to see the function of the dialectical contradiction, one is never perfectly clear as to what this contradiction is. The theses contained in the ordinary text-books are so superficial and massive that they have nothing in common with technical discussions like those held in Moscow in the Spring of 1958.[32] Three different expressions are currently in use: unity and conflict of contraries, dialectical contradiction, and compenetration of contraries. Conflict, contradiction and compenetration are complementary notions which explicate themselves in others, e.g., the categories of opposition, relation, contrary, identity and difference, inclusion and exclusion. As a final complication the Soviets constantly refer to Hegel whereas to understand them one has to forget everything that Hegel said. On the other hand, most of them reject logical contradiction and agree with Aristotle in defending the principle of non-contradiction. But they throw one off balance by adding: while there are no logical contradictions (i.e., no objective contradictory judgements), the very things which are at the basis of these non-contradictory judgements are themselves contradictory. To make sense of all this, 'contradiction' must have a double meaning: and this is the case. But why do contemporary Soviet philosophers both defend with Aristotle the principle of non-contradiction and accuse him of having denied contradiction in being? How is it possible in a logic based on being to be right in logic and wrong in ontology? This is what has to be grasped if one wants to understand the originality of contemporary Soviet thought.

The first characteristic of the dialectical contradiction is the unity and conflict of contraries. There is a basic question on the choice of the words 'identity' and 'unity'. The beginnings of this distinction are to be found already in *Philosophic Notebooks*: "The identity of contraries, perhaps one should say more precisely their 'unity', although the distinction between identity and unity is not of a great importance here."[33] But there is no unanimity among contemporary Soviet philosophers. When Bocheński reproaches Lenin for not having sufficiently distinguished unity and identity[34], Karabanov answers that "the difference between the terms identity and unity is of no great importance here".[35] But the majority of

[32] See the report in *VF*, 1958,12, 163–173.
[33] Lenin [4], p. 279.
[34] Bocheński, p. 95.
[35] Karabanov, p. 32.

contemporary Soviet philosophers are in favor of maintaining this distinction which had already been made by Hegel. According to Tugarinov, identity (*tožděstvo*) is said of an absolutely simple thing, while unity (*edinstvo*) indicates that a being is composed.[36] And since every being is necessarily complex, it follows that the notion of identity is an abstract category; only that of unity is concrete.

The essential task, therefore, is to specify the type of relation which exists between the elements joined in unity. A first clarification: the Soviets talk about conflict. But, while this notion is applicable to social phenomena (e.g., class-conflict), it has only a metaphorical sense in reference to inorganic nature. "For nature, the word 'conflict' should be put in quotation marks since it only has a figurative sense."[37] A more technical expression has to be used to express this notion philosophically.

Unity is indivisibly identity and difference. "While abstract identity excludes the unity of contraries, concrete identity comprehends difference and contradiction. Identity and difference are inseparably connected both in objective reality and in our concepts."[38] And he concludes: "The dialectic always implies difference in identity and identity in difference."[39] The Hegelian inspiration is obvious. The philosopher looking for the concrete concept will always have in mind the totality in its complementary aspect of identity and difference.

Whereas some contemporary Soviet philosophers tend to think that any difference produces a dialectical contradiction, others who study more closely the notions of difference and of contradiction affirm that every difference in unity is not a sufficient cause of dialectical contradiction. That a thing is different from another does not automatically imply that it is opposed to it. Otherwise one would have to say that different groups of workers in the U.S.S.R. are antagonistic classes because they are different. By itself, the notion of difference neither includes nor excludes the contradiction. Tugarinov thus writes: "There are contradictory and non-contradictory differences. Which means that the notion of difference is a more general category than that of contradiction."[40] Every contradiction

[36] Tugarinov, p. 93.
[37] *Ibid.*, p. 96.
[38] Karabanov, p. 53.
[39] *Ibid.*, p. 54.
[40] Tugarinov, p. 95.

includes difference but not every difference is a source of contradiction. Only that difference which is the result of contrary or opposed elements is the principle of internal contradictions. It is, therefore, the category of opposition in its triple character of relation, contrary and contradictory that allows us to understand the nature of the dialectical contradiction. Before going on to the explanation of the problem we should note a simple perception on which the Soviets base themselves. In the language of common sense, there is a dialectical contradiction when two or more elements mutually determine each other by acting on each other. One frequently finds the following definitions: "Internal contradiction [is] a unity of contrary aspects and tendencies...."[41] "Each dialectical contradiction is composed of contrary tendencies and forces which mutually exclude one another."[42] Since time immemorial philosophers have tried to explain the various levels of the real by reducing it to pairs of simple elements. Contemporary Soviet philosophy puts itself in this tradition. Its originality is supposed to consist in the fact that it shows that these elements in conflict and opposition guarantee the development of the world.

Unfortunately, contemporary Soviet philosophy seems to lack complete control over its conceptual tools – which helps to explain why there are differences of opinion among the Soviets. Another cause of ambiguity is the somewhat naive choice of 'scientific' examples. *Osnovy* jumbles together "... the positive and the negative, the North Pole and the South Pole, light and darkness, attraction and repulsion, beauty and ugliness, etc...."[43] And the damage is not repaired by the fact that the author acts like a Hegelian by adding that each term is 'the other of the other'. While attraction and repulsion are contrary forces, philosophy long ago showed that evil is not the contrary of good but its privation.

Neither is the incertitude which comes from the examples lifted by the philosophic explications provided by the Soviets. Although bourgeois philosophers have offered them many opportunities, the Soviets have never tried to provide exact definitions of 'relation', 'contrary' and 'contradictory' which they are constantly using. It is obvious that they do not have the same meaning that they do in Aristotle or Hegel – but this

[41] *Osnovy*, p. 249.
[42] Karabanov, p. 33.
[43] *Osnovy*, p. 248.

is a purely negative definition. Difficulties between contemporary Soviet philosophers and their opponents are due to a great extent to the fact that they do not speak the same language.

Hook, Wetter, Bocheński, and Marc[44], all think that the Soviet term 'contradictory' means 'contrary'. We think, on the contrary, that what the Soviets have in mind is neither the contrary nor the contradictory. In the terminology of Aristotle, contraries are notions which cannot coexist in the same subject. Dialectical materialism, however, does hold that opposed forces or tendencies do exist at the same time in the same subject. Even though Russian has two different terms for indicating contradiction (*protivorečie*) and contrariness (*protivopoložnost'*) they are often used interchangeably. Lenin's famous text which is usually translated as "Movement is a contradiction, is a unity of contraries" contains in both places the word *protivorečie*.[45] In addition, *protivopoložnost'* means both opposition and contrariness – which adds to the confusion. "In our [philosophic] writings the term 'contrariness' has different meanings. Sometimes it means an acute contradiction. Often it is used to indicate an antagonism...."[46] Conscious of his departure from the accepted view that contrariness is a sort of tension between contradictories, Tugarinov offers the following definitions: "... Contradiction is a determined connection or relation [*otnošenie*] between things which are different; contrariness indicates those forces which are born of this contradiction and which are mutually opposed."[47]

One thing remains clear throughout these vagaries and uncertainties: what Soviet orthodoxy calls dialectical contradiction is not to be confused with formal logic's oppositions. The critics of Marxism-Leninism have identified the dialectical contradiction with the oppositions of contradiction or of contrariness because they have been led up this path by the contemporary Soviet philosophers themselves. When the latter reproach Aristotle with having concluded that there is no contradiction in being, either they give to the word 'contradiction' the sense it has in *Organon* and it is then very true that there is no contradiction in being, or they give this word another meaning and there is no reason to bother Aristotle about it.

[44] Hook, pp. 7ff.; Wetter, p. 407; Bocheński, pp. 94–95; Marc, p. 69.
[45] Lenin [4], p. 214.
[46] Ukraincev, p. 49.
[47] Tugarinov, p. 95.

2. *Dialectical Contradiction as Correlation, Opposition and Constitutive Relation*

The problem of logical oppositions is one thing, that of the analysis of the principles of being is another. And just as in Aristotelianism the pair matter–form cannot be reduced to any logical opposition, so the dialectical contradiction in Marxism is an ontological function which cannot be explained by recourse to formal logic. One must agree with professor Popov that "... there is no reason for expressing the contradictions of objective reality by means of a logical judgement of contraries. The objective dialectical contradictions take on infinitely varied forms...."[48]

We know that Soviet orthodoxy talks sometimes of unity and conflict of contraries, sometimes of dialectical contradiction, sometimes of penetration of contraries. It seems that each one of these expressions deals with one aspect of reality.

The unity of contraries contains the idea of relation. There is no dialectic of nature unless the beings of nature and the principles which constitute each being are not isolated and separated but related. This permits contemporary writers to take a passing shot at Deborin. Deborin held that in the beginning there was absolute identity and that opposed principles came only later. They point out to him that it is impossible to deduce the contradiction from identity. If there had been identity in the beginning there would be identity in the end and there would be no evolutionary process.

Only an abstract, idealist view could put identity at the beginning of things. In fact, the cosmos has always been composed of elements which are distinct but mutually related. Although this notion of connection or relation is central to contemporary Soviet philosophy it is not defined, even in the *Short Philosophic Dictionary*. One must, therefore, not try to give it too precise a definition. Relation generally means something like 'connection' or 'bond' between two distinct things or principles. And, although contemporary Soviet philosophy holds that all beings are related, it by no means wants to say that relations constitute the essence of things. Tugarinov writes: "Reciprocal bonds and relations are not pure relations but relations *between phenomena*."[49] Following the classical tradition,

[48] Popov, pp. 132–133.
[49] Tugarinov, pp. 27–28.

contemporary Soviet philosophy holds that relations are not constitutive of the essences of things. One finds in *Osnovy*: "Each element of the contradiction has its own determined tendency: positive or negative, effect or counter-effect, etc...."[50] Every intrinsic principle of any being owes to itself its being what it is. But the Soviets immediately add that this principle of being is in immediate relation with another principle with which it forms a dialectical unity. "But these contrary tendencies form a unity, being joined in one and the same object."[51] The internal principles of things cannot exist separately. Examples are drawn from all domains: nuclear physics, biology, psychology, etc., which oblige specialists in the various domains to verify Lenin's statement: "In mathematics, the + and the −, the differential and the integral; in mechanics, action and reaction: in physics, positive and negative electricity; in chemistry, union and dissociation of atoms; in social science, class-war."[52]

It has to be stressed that the contrary tendencies of forces are binary correlatives. This is the ontological foundation of the 'polarity' we mentioned when discussing the dialectic of categories.[53] Dialectical contradiction divides all the categories because the real principles at the basis of the categories are correlatives.

The second meaning of 'all is contradictory' naturally follows on the first. The notion of dialectical contradiction stresses that contraries are antagonistic forces. In all positing there is opposition. The term 'contradiction' (*protivorečie*) easily evokes the idea of conflict. "The unity of contraries is only one aspect of the law of the unity and the conflict of contraries. The other aspect – and the more important – is that of the conflict of contraries. Due to this contrariness of contradictory tendencies there is no rest but only conflict between these different tendencies."[54]

It is evident that the notion of conflict is sullied by anthropomorphism. But it is even more dangerous in that it evokes the idea of a mecha-

[50] *Osnovy*, p. 250.
[51] *Loc. cit.*
[52] Lenin [4], p. 279.
[53] "The contradictory nature of all the dialectical categories is shown through their contraries: movement–rest, identity–difference, singular–general, part–whole, finite–infinite, essence–phenomenon, content–form, contingent–necessary, possibility–reality, cause–effect, liberty–necessity, object–subject, etc..." (Butenko, p. 33).
[54] Kalošin, p. 162.

nical type of opposition. In order to avoid mechanicism, dialectical materialism tries to find a more adequate term. The term was, as a matter of fact, used by Lenin but – as Šur points out – he used it in *Philosophic Notebooks* which was not a definitive work.[55] There is thus no reason to preserve the term. Conflict is the opposition of contrary forces and tendencies which are mutually exclusive: there is dialectical contradiction when two realities exclude each other. The term which keeps coming back is *vzaimoisključenie*, which can best be translated by mutual exclusion. Does this mean that the contraries cannot exist in the same subject, i.e. coexist? This is not the meaning and the Soviet philosophers warn against it. "If, on the other hand, the contrary tendencies absolutely excluded each other there would be no relation at all between them and, therefore, no conflict."[56] To exclude each other means only to coexist but in rejecting each other. Lefèbvre is perfectly correct when he says: "They are mutualy exclusive but they imply each other. They are contradictories which are connected and inseparable but incompatible."[57] This is Soviet orthodoxy's materialistic transposition of Hegel's restlessness (*Unruhe*) of essences.

This is why any attempt to reduce dialectical contradiction to the opposition of contraries is senseless: not only because, in Aristotelianism, contraries exclude each other in such a way that if one is present in a subject the other is necessarily absent; but also because for Aristotle contraries cannot have the property of being causal agents.[58] Dialectical materialism has a diametrically opposed point of view. Contraries are *active* elements or principles. German expresses this very well in *Gegensatz ist Gegenwirkung* (to be opposed to is to act against). Therefore, dialectical contradiction is not a dead opposition but an active and productive one: any contradiction is the sign of a tension. In a primary sense the contraries are correlatives but which require each other and are also in conflict with each other. Both aspects are necessary and of equal importance. Contraries which were only correlative would coexist without tension. Contradictions which were not relative would lead to exclusion without coexistence. One sees here how the pairs of contrary tendencies are indivisibly positing and opposing. But this is not the end of the analysis.

[55] Šur, p. 171.
[56] Andreev [2], p. 80.
[57] Lefèbvre [1], p. 158.
[58] Aristotle [3], p. 1075 a30. See Anton, p. 81.

The dialectic of nature contains another novelty. The notion of the dynamic tension of being tends to explicate itself in a new notion, that of reciprocal penetration or of 'compenetration'. This is the *Durchdringung der Gegensätze* of Engels, which comes out in Russian as *proniknovenie protivopoložnostej*.[59] What is the novelty of this notion? That contrariness is not only relation, not only opposition, but also *constitutive correlation*. The compenetration of contraries indicates that the contrary couples of reality owe to their interaction the fact that they are, what they become, and what they produce. The contraries are not *gegeneinander* but *auseinander*. They do not destroy each other but come one from the other. "In our writings the term 'dialectical unity' is often used to indicate interdependence [*vzaimozavisimost'*] between intrinsically contrary elements."[60] This interdependence must be understood as reciprocal conditioning. One reads in the same article: "The concept of reciprocal conditioning [*vzaimoobuslovlennost'*] and that of the identity of contraries reflect the different aspects of the dialectical unity of contraries."[61]

We noted above that a contrary has a specific nature which is proper to it and this is the case. But, now, Soviet philosophy insists on another important point: any contrary at all is what it is only in reference to *its* contrary. In other words, a principle of being is what it is only by the intrinsic relation toward the other principle which is its complement. Marxism here approaches the scholastic notion of transcendental relation. Between matter and form there is a transcendental relation because matter is necessarily defined in relation to form and vice versa; and neither can exist without the other. When, for example, contemporary Soviet philosophers say that positive and negative electricity are compenetrant, they mean the same thing. "The contraries are united in the sense that they are principles of a single object, of a single phenomenon and that they cannot exist one without the other. One cannot imagine the exploited without exploiters, the old without the new, the positive without the negative, the just without the unjust, etc. The two poles of any contrariness are compenetrant. If one of the contraries ceases to exist, the other ceases to be a contrary."[62] Contrariness taken as compenetration is the consti-

[59] *VF*, 1958,12, 164.
[60] Ukraincev, p. 51.
[61] *Loc. cit.*
[62] Andreev [2], p. 79.

tutive relation (or essential relation) of the nature of things. Contraries which penetrate each other to form a stable being are active contraries. The relative stability of natural beings – which is not denied by Marxism – must not be allowed to hide this activity. While the constitutive relation has a static form – a certain permanence of the object – it is its dynamic form that counts.

It is frequently said that contraries which are compenetrant negate each other. But one cannot say they suppress each other in the sense that 'suppress' has in Hegel. In fact, this suppression is a transformation. The ultimate stage in the dialectical contradiction is the change of a contrary into its other or the transformation of the two into a third. Which means that the dialectical contradiction is the source of change: "The dialectical contradiction is the basic category in the Marxist conception of development. It is ... the principle and the motive force of the whole of the evolutionary process."[63] And *Osnovy* recalls that "Lenin considers the theory of contradiction as the 'kernel' of the Marxist dialectic, as the theory which provides the key to the comprehension of all the aspects and moments of development".[64] This point is so important that Soviet scientists and philosophers devote long treatises to it but this is not the place for a detailed account of their discussions in physics, biology, psychology, etc.[65] The most pertinent arguments are drawn from contemporary physics. Professor Terleckij, specialist in nuclear physics, admits that the photon and the meson π neuter are – at least so far – regrettable exceptions to the law of polarity, according to which the particles should come in pairs. However, it is in general the case that the study of the elementary particles scientifically confirms the law of compenetration of contraries. Terleckij writes: "One of the fundamental properties of the elementary particles is their full ability to change one into the other, which was definitively demonstrated by the discovery of the anti-proton at the end of 1955. Any elementary particle can be changed – spontaneously or with the corresponding anti-particle – into qualitatively different particles."[66] He later adds: "Thus *the unity and identity of contraries* appears in the simplest

[63] Karabanov, p. 30.
[64] *Osnovy*, p. 244.
[65] Cf., e.g., the collective work *Nekotorye filosofskie voprosy estestvoznanija*, Moskva 1957.
[66] Terletski, p. 30.

way in the microcosm. When in the interactivities of the elementary particles there appear qualitatively new particles, this generally happens by the formation of particle–anti–particle pairs, i.e., that which is qualitatively new appears through the division of the original matter into mutually exclusive contraries."[67] Thus, when the critics of Marxism affirm that the dialectical contradiction is not a scientific category but a 'dogmatic' notion[68], the Leninist philosophers feel justified in answering that though the thesis on dialectical contradiction is a philosophic interpretation of the world's becoming, it is nonetheless based on science. Butenko answers the criticism: "The dialectic and materialism are inseparably bound up with the science of nature...."[69]

This constitutive relation which is the dialectical contradiction in the form of a compenetration of contraries is the most basic element of the dialectical opposition. It is not an exaggeration to say that it "... is a veritable triumph of the dialectic".[70]

The classic thesis – the unity of contraries is only relative while the conflict of contraries is absolute – only takes up the same idea.[71] For, the Marxists are determined to maintain their distance from Hegel. The system of *Science of Logic* is oriented toward the absolute idea "... which is the identity of the theoretical and the practical".[72] The absolute idea is the *locus* of the definitive reconciliation – which means the end of the dialectic. Contemporary Soviet philosophers reject this view as bourgeois and conservative: "The Hegelian dialectic contains, alongside the idea of genius of contradiction as the principle of development, the tendency to reconcile the contraries. This tendency shows the undoubtedly bourgeois character of Hegelian philosophy: Hegel refuses to draw from the dialectic – the 'algebra of the revolution' – all the social conclusions."[73] In reality there is no end to the dialectic since identity which is not in the beginning cannot be in the end. Here, Marxism is only being conse-

[67] *Ibid.*, p. 30.
[68] Blumberg, p. 329.
[69] Butenko, p. 180. See also Omel'janovskij [4], pp. 66–74.
[70] *Osnovy*, p. 248.
[71] "The unity (coincidence, identity, equality of action) of contraries is conditioned, temporary, passing, relative. The conflict of contraries which mutually exclude each other is absolute as are development and movement" (Lenin [4], p. 280).
[72] Hegel [3], vol. II, p. 483.
[73] *Osnovy*, p. 250.

quent. Every philosophy of identity – Plato, Plotinus, Spinoza, Hegel – contains traces of idealism. For Soviet orthodoxy absolute identity is always the sign of idealism: as they well know, God is the being which is perfectly identical to itself. A materialist philosophy can give to identity only a secondary and derived status.

3. *Dialectical Contradiction and Movement*

We would have stopped our exposé at this point if it were not for the novel explanations on the relations between dialectical contradiction and movement which came out of the conference on contradictions in Moscow in 1958.

Leninist orthodoxy refuses to seek the basis of material beings outside of nature. It also refuses to put the origins of movement in a prime mover. Only 'metaphysicians' maintain that movement can be explained solely by recourse to a first cause. "The metaphysical idea of becoming reduces active force to the notion of 'external impulse'. Which means that metaphysical materialism maintains an idealistic and religious conception of the origin of becoming because the 'external impulse' postulates divine activity."[74] These metaphysicians use a mechanist notion of movement. They 'imagine' movement on the model of one billiard ball which sets another moving. And, instead of asking themselves if the force which pushes the first ball could not come from an internal impulse, they believe this original impulse comes from God.

They have forgotten only that dialectical contradiction is an immanent force. Because of the force of contradiction, one has to say that the movement of a being is self-movement. Some contemporary Soviet philosophers go so far as to imply that movement is less the result of contradiction than that it *is* the contradiction itself: it is in movement that things are contradictory. This was Engels' idea, taken up by Lenin and the majority of contemporary Soviet philosophers, but recently attacked with violence by Kol'man.

In his chapter on the dialectic, Engels notes that if "... we consider things at rest and without life, each by itself. one beside the other and one after the other, we will not find, of course, any contradictions in them".[75] On the contrary, if we follow things in their change and interaction, then contradiction appears. Engels concludes: "Movement itself is a contradiction. Even simple local motion can come to be only because at

[74] Andreev [2], p. 59.
[75] Engels [1], p. 152.

one and the same moment a body is both in a place and in another place, in one and the same place and not in it."[76] The precision of the terms used by Engels – "a body is at the same time in one place and in another place" – seem to indicate that his affirmation violates the principle of non-contradiction. Hook writes: "Confusion becomes extreme when Engels talks of contradiction as the motive principle of all movement and development, when he turns logical notions into 'demiurges' in a way that even the idealism of Hegel cannot tolerate."[77] Such judgements are no surprise.

But surprise was great in Moscow when Kol'man attacked Engels with the same criticism. The affirmation that movement is contradictory is purely and simply nonsense: it violates the principle of non-contradiction. Kol'man writes: "... Thus one must not answer the same question under the same aspect with yes and no."[78] But this is what Engels does. "In the last part of his text, Engels answers the question as to whether a body is in a given place at a certain moment with yes and no thus violating the principle of non-contradiction."[79] Kol'man shows that the dialectical contradiction is not simultaneous affirmation and negation about the same object. Dialectical contradiction is that which pertains to 'different aspects of reality'. Engels himself recognises this elsewhere. He does not say that attraction is repulsion but that within one body attraction and repulsion exist at the same time.

Kol'man thinks that Engels was able to say that movement is contradictory because he had let himself be drawn in by Hegel. Contemporary Soviet philosophers think that Hegel is opposed to Aristotle on the problem of movement. Lenin himself offers this interpretation.[80] In fact, Hegel agrees with and explicitly refers to Aristotle on movement.[81] That Engels and Lenin use a bad interpretation of Hegel to deceive their disciples is not too serious. What is serious is that this error leads to the affirmation of an absurdity and that this absurdity becomes a commonplace of a whole

[76] *Loc. cit.*

[77] Hook, p. 9.

[78] *VF*, 1958,12, 165. The first philosopher to bring up this problem was Schaff in 'Zasada sprzeczności w świetle logiki dialektycznej', *Myśl Współczesna*, 1946,3/4, 328–353, which drew down on him the repeated attacks of the Soviets (*VF*, 1959,4, 77).

[79] *VF*, 1958,12, 165.

[80] "Ueberweg-Heinze, 10th ed., p. 63. (§ 20) is wrong in saying that Hegel 'defends Aristotle against Bayle'. Hegel refutes both the sketpic (Bayle) and the anti-dialectician (Aristotle)" (Lenin [4], p. 214).

[81] Cf. Hegel [1], II, 18, pp. 360–361, and 17, pp. 329–342.

philosophic school. The reaction of Schaff and Kol'man was refreshing. However, Kol'man was immediately attacked during the same conference. Il'enkov's reply[82] shows that philosophers in the Soviet Union still think that to save the dialectical contradiction one must limit the range of the principle of non-contradiction. In other words, he who refuses to say that white is not black would, thereby, eliminate the dialectic of being. It is interesting to note that one of the most curious statements on the subject comes from a member of the Moscow Pedagogical Institute. "The objective, logical contradiction is the necessary result of the contradictory development of the content of our concepts, which reflects the internal contradictions of things."[83] For such thinkers, one must add to the three notions – relation, opposition, and constitutive relation – to which we have tried to reduce the dialectical contradiction, a fourth: logical contradiction. Happily, these 'friends of the contradiction' are being fought down by their own colleagues.

Engels was drawn into making untenable assertions because the category of 'contradiction' was taken from Hegel. Since in Hegel this notion in always seen in function of the Logos, it remains within limits. However, as soon as it loses this point of reference and is used for the ontological constitution of beings, this notion of contradiction tends to regain the ordinary meaning it has always had in realist philosophies. One has to stretch things to make it say what it cannot say. Since in Marxist usage 'dialectical contradiction' is very close to the notion of active, potential principles which come to be thanks to the relation and the tension which they exert on each other, Soviet orthodoxy might better drop the category of contradiction. Clarity would increase. If one absolutely has to retain the term 'dialectical contradiction' – in order not to abandon Hegel to bourgeois reaction – it has to be exactly defined. Contemporary Soviet philosophy is taking steps in this direction but as yet they are only steps.

C. TRANSITION FROM QUANTITY TO QUALITY

Contemporary Soviet philosophers are of the opinion that the law of the transition from quantity to quality is necessary for the understanding of

[82] *VF*, 1958,12, 168–169.
[83] Pletnev, p. 91.

the dialectical evolution of matter. But, since they succeed in adding little to what Engels and Marx[84] already said, we will not spend much time on it. Soviet orthodoxy recognises that this thesis has a Hegelian origin. In fact, on this point dialectical materialism follows the thought of Hegel quite closely. The Soviets only mention quantity and quality: for Hegel there are three: quality, quantity, and measure. We will define the terms before analysing the transition from quantity to quality, and back.

1. *The Categories of Quality, Quantity, and Measure*

Quality generally indicates the internal nature of an object: "Quality is the intrinsic determination [*opredelennost'*] of objects and of phenomena – a determination which is essentially inseparable from objects and phenomena and which gives them their specific character and distinguishes them one from the other."[85] Basic insistence, then, is on the objectivity of the category of quality. And this is why dialectical materialism refuses the distinction between primary and secondary qualities.[86] Quality is inherent in beings and it is also that which characterises a being. Is quality a relative or absolute determination? There is no unanimity on this point. We have seen that Tugarinov puts the categories of quantity and quality in the group of relative categories. "Quality makes relation apparent. This is why, under one relation, each phenomenon has one quality and, under another, another quality."[87] But, he immediately adds that quality is not only relative but also absolute. This lines him up with the opinion of those who reduce quality to that which traditional philosophy called the nature or essence of a being. *Osnovy* says: "It is through quality that an object is what it is."[88] Andreev writes that quality is the 'internal essence' of an object or phenomenon.[89] These philosophers hesitate between the relative and absolute aspect because they remember that the various objects in the world are in interaction because their

[84] The classics of Marxism deal explicitly with this problem: Marx [3], book 1, vol. I, p. 302; Engels [1], pp. 151–160; [2], pp. 69–74; Lenin [4], pp. 87–104.
[85] Andreev [3], p. 88.
[86] "Dialectical materialism rejects the idealist division into primary and secondary qualities and shows that qualities are inherent in things and objective" (*Kratkij filosofskij slovar'*, French ed.), p. 507).
[87] Tugarinov, p. 78.
[88] *Osnovy*, p. 226. Cf. Moroz [2], p. 183.
[89] Andreev [3], p. 92.

ultimate foundation is found in matter. "Matter as substance has an infinity of aspects and possesses innumerable properties...."[90] They are afraid, then, that if they say that quality is that which makes a being what it is, one will conclude that each object is isolated.

Since there is a multiplicity of objects in the world, there is a plurality of qualities. However, some think that one and the same object is made up of several qualities. Raximzanov, who is in favor of this view, notes that it has had eminent partisans. Engels, for example, says in *Dialectic of Nature*: "There are not just qualities but only things *with* qualities and, in truth, an infinite number of qualities."[91] Raximzanov goes on to try to show that a consideration of the evolutionary aspect of nature obliges us to admit that one object has a plurality of qualities. In its development, a living being passes through different stages. Growth, maturity and old age clearly show that the same being acquires different qualities.[92] This leads him from 'destructuration' to a properly empiricist point of view. For him, man is an "aggregate [*sočetanie*] of physical, biological, chemical, etc., qualities...".[93] Whence his conclusion: "This is why objects and phenomena – because they have many qualities and because each quality is bound up with a distinct essence – have a plurality of essences of different degrees."[94] This is an extreme point of view and is no longer held but rather vigorously attacked.

In his article 'The Dialectic of Quantity and Quality'[95] Lapšin shows that the thesis on the plurality of qualities leads directly to mechanicism. There is no question that man, for example, is made up of a diversity of elements. "But, when one speaks of man it is his social quality which is his substantial quality. Biological, chemical and physical qualities are – like his profession and place in society – only the concrete expressions of his social quality."[96] A being does not reduce to the sum of its elements. One can, therefore, say that for the immense majority of contemporary Soviet philosophers quality is οὐσία, i.e., the essential nature of a being.

Hegel carefully distinguishes quality and property. The first is *die*

[90] Meljuxin, p. 121.
[91] Engels [2], p. 235.
[92] Raximzanov, p. 18.
[93] *Ibid.*, p. 19.
[94] *Ibid.*, p. 23.
[95] Lapšin, pp. 152–156.
[96] *Ibid.*, p. 155.

unmittelbare Bestimmtheit des Etwas, and the second *bestimmte Beziehungen auf Anderes*.[97] Similarly for contemporary Soviet philosophy, quality is an absolute determination while property always expresses a relation. "Property is the expression of a quality in its relationship to another quality."[98] These extrinsically formulated descriptions have to be corrected in the sense that the property is nonetheless a real and objective determination of objects. "Property is also the external manifestation of quality."[99] 'External' here means that which exteriorises the quality. While Soviet orthodoxy rejects the distinction between primary and secondary qualities, it does make a distinction between main and derived or essential and non-essential properties.[100] And although these essential properties are distinct from the essence, they are nonetheless necessarily bound up with the internal structure of phenomena. In short, dialectical materialism rediscovers the scholastic thesis on predication *in secondo modo dicendi per se* and on accidental predication. The relations between quality and property follow from the definition of the terms. Qualities and accidental properties are separable, while it is impossible to deprive a quality of its essential properties without *ipso facto* causing the disappearance of the quality and, therefore, of being.[101]

Though the property is less essential to an object than quality, it still belongs to the qualitative order. Quantity, however, is a determination of a completely different order. Contemporary Soviet philosophers are unanimous on speaking about quantity without defining it. Instead of a definition, we find examples, as in Andreev: "All objects and phenomena have not only a qualitative determination but also a quantitative determination. The quantity of an object is its size, its dimensions, its volume. The quantity of objects is expressed by certain properties, like valence, specific weight, etc...."[102] *Osnovy* affirms the importance of quantity but pass rapidly over the definition. "The concept of quantity is also a general category which reflects an important aspect of an object, a phenomenon

[97] Hegel [3], vol. I, p. 101.
[98] Kedrov [1], p. 15.
[99] Andreev [2], p. 129.
[100] Andreev [3], p. 89.
[101] Many contemporary Soviet philosophers are unaware of the distinction between essential and accidental properties. Therefore, they consider the property to be an accident, i.e., separable from substance (cf. Kedrov [1], p. 14).
[102] Andreev [2], p. 131.

or a process. Quantity, too, is a determination of the object but it differs from quality in that it characterises the object in reference to the degree of development of its properties, like size, volume, number, speed of movement, intensity of color, etc...."[103] Meljuxin, a philosopher with scientific training, makes a try at a definition: "Quantity is the objective degree of difference between objects and phenomena which have similar qualities."[104] Dudel' uses the notion of repetition (*povtorjaemost'*) in his attempted definition.[105] Thus, contemporary Soviet philosophers confuse quantity with the properties which derive from quantity, like number, size, volume, etc. Having thus begun the reduction of quantity to number, they define it as a degree of quality.

In fact, Soviet orthodoxy mainly interests itself with the relationship between quality and quantity. These two categories are distinct but inseparable. Every being has both a qualitative and quantitative aspect. "In life, in extramental objective reality, qualitative and quantitative determinations are always inseparably bound together."[106] This bond is expressed in the category of measure.

Soviet orthodoxy integrally repeats Hegel's definition: "Measure is the immediate unity of quality and quantity."[107] The unity shows that the quantity of a body can change up to a certain point without involving a qualitative change; if this point is passed, there is qualitative change. This thesis has become standard in contemporary Soviet philosophy. "Qualitative determination does not exist without quantitative determination and vice versa. This unity of qualitative and quantitative is seen in measure. Measure expresses the reciprocal activity of the qualitative and quantitative aspects of an object or phenomenon."[108] Thus, the category of measure is the law of the transition from quantity to quality.

2. *The Law of the Transition from Quantity to Quality*

Each being has its proper measure. To a given quality corresponds a certain quantity. While quality – in Aristotle's metaphor – is like the numbers and does not admit of subtraction or addition, quantity admits of

[103] *Osnovy*, p. 227.
[104] Meljuxin, p. 117.
[105] Dudel', p. 57.
[106] *Ibid.*, p. 60.
[107] Hegel [2], vol. I, p. 340.
[108] Moroz [2], p. 190.

the plus and minus. A quantitative change does not produce a qualitative change except under certain circumstances. This leads dialectical materialism to reject the criticisms made of this law. Hook notes that this law does not have an absolute validity since every quantitative changes does not imply a qualitative change; e.g., a pile of stones remains a pile even if the number of stones varies. [109] This objection is obviously not pertinent but chemistry does provide some which are more to the point. Walter has shown, for example, that one can obtain two qualitatively different bodies without any quantitative modification. Thus, CN_2H_4O is found in two qualitatively different bodies: urea $CO(NH_2)_2$ and ammonium cyanide $(NCO)NH_4$. [110] Does this prove that the law of the transition from quantity to quality is not a universal law? Contemporary Soviet philosophers do not think so and this drives them to make some interesting comments.

They note that it is not enough that quantity be related to quality for there to be measure. The relationship has to be intrinsic. "Each object is a measure in the sense that a determined quantity is a function of its qualitative property and, vice versa, that the quantitative limit depends on the qualitative aspect." [111] And: "Measure is the unity and the reciprocal action of quality and quantity." [112]

Measure is thus the synthesis of quality and quantity. While Hegel calls it 'qualitative quantity', it is noted that it could also be called 'quantitative quality'. [113] These clarifications get rid of the objection of the pile of stones: but, there is more.

To really understand the transition of quantity to quality, one must use two other notions, succession and leap. "The categories of succession [*postepennost'*] and leap [*skačok*] express the character of change inherent in quantity and quality. Succession in change is the property of quantitative change and the leap that of qualitative change." [114] Kedrov and a few others hold that *postepennost'* is the property of both qualitative and quantitative changes. [115] This is because they distinguish continuous and

[109] Hook, p. 21.
[110] Walter, p. 155.
[111] *Osnovy*, p. 230.
[112] *Loc. cit.*
[113] *Loc. cit.*
[114] Tugarinov, p. 79.
[115] Kedrov [4].

discontinuous succession. Although the words differ, the thought is the same. The quantitative order is continuity; the qualitative order is discontinuity. "The leap marks an interruption in succession, and a rupture in the continuity of development." [116] Thus a continuous accumulation of quantity produces, at a given point, the disappearance of quality. Quantitative evolution provokes qualitative revolution. The leap is, therefore, the suppression of one quality and the appearance of a new one.

Concretely, this transition can have many forms. Recognition of it is of great methodological importance for dialectical materialism. In general, quantitative changes are slow and imperceptible; qualitative changes are abrupt and apparent. [117] But, the notions of time and of duration are themselves relative. Thus, a day will be long or short depending on the type of phenomenon in question. "The concepts of 'rapid' and 'slow' leaps are relative because they have no intrinsic value, only a value relative to the previous state of existence. Thus, if the period of transition from the old quality to the new one is relatively short compared with the duration of the preceding state, the leap is called rapid; in the contrary case, it is called slow." [118] Alongside of the *leap-explosions* (*skačok-vzryv*), contemporary Soviet philosophy devotes a lot of time to discussing slow and imperceptible changes.

On the other hand, if these slow modifications are really qualitative modifications, they do not always affect being which changes according to the totality of its quality. Nature contains qualitative changes of different depths. Thus, the example Engels took from Hegel shows that in the transition of water from liquid to solid there is no chemical change of the water. [119]

Meljuxin notes that the 'concretisation' of the forms of transition is only conditionally applicable to the world of nuclear physics. After having shown that the 'two' physics have certain common properties, he adds: "But other properties – spin, inclusion in a statistical type, periodicity, the

[116] *Osnovy*, p. 236. "If one takes into account that the qualitative changes express the moment of continuity in development and that the qualitative changes express that of discontinuity (discontinuous succession), then one must say that development is the unity of continuity and discontinuity" (Meljuxin, p. 132).
[117] "Quantitative changes are generally slow while the leap happens in a rather short lapse of time" (*Osnovy*, p. 237).
[118] Meljuxin, p. 129.
[119] Kedrov [3], pp. 83–84.

meson, etc. – are specific properties of quantum physics and have no counterparts in macrophysics."[120] In microphysics the properties are not 'additive'. The leap, then, has to involve not an isolated particle but the whole system. Nevertheless, the law of the transition of quantity to quality remains valid in microphysics: "In the reciprocal transformations of the elementary particles we see one of the most fundamental properties of matter in general, i.e., its ability to change itself from one form to another, qualitatively different, form."[121] The conclusion is that, regardless of their concrete forms, dialectical leaps always have the same essence. "They are, in each case, an abrupt change in development, a fundamental modification of the object, the destruction of the old and the appearance of the new."[122] Everywhere and always the dialectical leap is a qualitative break determined by a quantitative modification.

Engels wrote in *Dialectic of Nature*: "The law of the transition from quantity to quality and vice versa."[123] What does 'vice versa' mean here? Contemporary Soviet philosophers are hesitant on this point and there are few explanations of the 'how' of the phenomenon. For *Osnovy*, the fact that quality passes into quantity is self-evident :"This is completely clear since each new quality is organically bound up with a new quantity, with a new quantitative proportion."[124] The examples given are all from society. Not one is drawn from organic or inorganic nature. One author shows that the cooperation of workers in socialist society produces a greater quantity of work than in capitalist society.[125] Another that the replacement of cooperatives by manufacturing leads to an augmentation of production.[126] And they conclude that the action of quality on quantity is a law of nature: but this is what had to be demonstrated.

Other contemporary Soviet philosophers offer a much more sophisticated formulation of this law. Tugarinov does not talk about the influence of quality on quantity. He limits himself to noting that each new quality has its corresponding quantity. "Quantitative changes are the principles and the causes of qualitative changes. On the other hand, quantitative

[120] Meljuxin, p. 126.
[121] Terleckij, p. 250.
[122] *Osnovy*, p. 241.
[123] Engels [2], p. 69.
[124] *Osnovy*, p. 229.
[125] *Ibid.*, pp. 229–230.
[126] Moroz [2], p. 194.

change takes place within quality as the end of the phenomenon."[127] In other words, the new quality is the basis of quantity – and nothing more.

3. *The Importance of this Law*

For dialectical materialism the law of the transition of quantity to quality is a universal law of nature, of society, and of thought. What, then, is its place and philosophic significance as a particular law of the dialectic? The sciences of nature have given quantity a greater and greater role and dialectical materialism does not deny that the *quantum* has an essential value. "The study of the quantitative aspect of phenomena is a step in the penetration of knowledge; it leads to the discovery of the laws of phenomena."[128] By introducing the category of measure – the nodal point between quantity and quality – dialectical materialism adopts the methodological principle according to which qualitative differences are measurable in terms of quantitative differences.

There is an opinion quite widespread among Western philosophers which tends to erase the difference between quality and quantity. Soviet orthodoxy cannot hold that the recognition of quantity results in the suppression of quality. Quality is not reducible to quantity. If there are no qualities, physics becomes mechanist and biology falls into vulgar evolutionism. Contemporary Soviet philosophy maintains quality in order to conserve the specific differences between the great areas of being: the inorganic, the organic, the humanly social.

The law of the transition from quantity to quality has its own specific character. We have seen that the conflict and opposition of contraries explains the origin of movement. Engels' second law describes the mechanism of this movement. "The same unique process (process of development) has two characteristic aspects: that of the source and impulsion of development (one talks of the origin, expansion and change of contraries); and that of the forms of development (one talks of the accumulation of quantitative changes and of the transitions to qualitative changes)."[129] The first law explains the 'why' of change: the second law explains the 'how' of change.

[127] Tugarinov, p. 79.
[128] *Osnovy*, p. 232.
[129] Andreev [3], p. 111.

Although the Soviets insist that one should not separate the laws of the dialectic, they do not sufficiently explain the dependence which unites them. Conceding that the contradiction is the source of movement and that, thus, all movement is self-movement, it would be interesting to see how these internal contradictions concretely guarantee the transition of quantity to quality. Undoubtedly, one would have to say that the first law influences the second precisely because a part of the quantity of the body acts on another part of the quantity of the same body which brings about a qualitative modification. But, this is not concretely described. Taking the case of the elementary particles, professor Terleckij shows how they pass one into the other. But, because a particle is already a 'measure', i.e., the synthesis of quantity and quality, this analysis leads to the conclusion that a given nature (both quantity and quality) changes into another. That this happens is not the question, but there is here no direct influence of a quantity on a quality. We only want to point out that this delicate point is not treated simply because contemporary Soviet philosophers seem not to be aware that when one deals with the inorganic world – and especially with the subatomic world – it is very difficult to talk about quality. By quality dialectical materialism understands the essential structure of a being, its nature. While one can define the large divisions of being – and also grasp some natures within these divisions – it is extremely difficult to apply this notion of nature to the inorganic world. The emerald and the ruby obviously have different properties but one can say they are different essences or natures only in a very analogical sense. This remark does not contest the validity of the law of the transition of quantity to quality but only shows how difficult it is to satisfactorily illustrate it.

There is another objection which can be made. To prove the law of the transition from quantity to quality the Soviets invoke the table of Mendeleev which Dudel' presents "... as a brilliant table of the dialectic of nature, as a grandiose table of the quantitative and qualitative changes as well as of the discontinuous development of the infinite material universe".[130] Rozental', too, is of the opinion that "... the periodic system of the elements established by the great Russian chemist, Mendeleev, is based on the law of the transitions of quantity to quality".[131] No one

[130] Dudel', p. 68.
[131] Rozental' [1], p. 192.

will deny that this table of the elements is a very good example of the fact that a quantitative change induces a qualitative modification. But when contemporary Soviet philosophers believe that there is a *change* of an element to another, they go beyond the possibilities of scientific proof. Klaus, Wetter's most energetic opponent, attacks Rozental' for having badly confused the law of structure and the law of evolution. "It is not a question of the discovery *of a law of evolution* of the elements but *of a law of structure*. He [Mendeleev] wanted to show the systematic interdependence of the elements and recognised that this interdependence is not a progression without discontinuity."[132] The *Nebeneinander* does not always imply the *Nacheinander*.

Although we cannot share all the affirmations of contemporary Soviet philosophers, it is the case that this philosophic law has some validity in nature. It can also be used to describe many processes in the human and social order. If, however, one holds to the universal value of this law at the level of the person and of society, one must conclude that the totality of being is always 'quantified'. This is a questionable materialist thesis which in the end affects the qualitative order itself. It is so difficult to talk of generosity and humility in quantitative terms that in 'degree' of generosity the word 'degree' has a qualitative component.

But, the Marxist-Leninist thesis holds that after a certain quantitative accumulation the old quality disappears and a new quality appears. Only the law of the negation of negation facilitates an understanding of this 'old' and 'new'.

D. THE LAW OF NEGATION OF NEGATION

As long as Marx, Engels and Lenin were the only 'classics' of Soviet thought, the law of the negation of negation was considered one of the essential laws of the materialist dialectic.[133] After the publication of *Dialectical Materialism and Historical Materialism* in 1938, Stalin became the master of orthodoxy and the 'classic' *par excellence*. He does not mention the law of the negation of negation and the Soviet works

[132] Klaus, p. 279.

[133] Marx [5], pp. 127–128, 132, 141; [3], book 1, vol. III, p. 205; [2], pp. 86, 90, 91. Engels [1], pp. 161–173, 381–387; [2], pp. 25, 69. Lenin [2], pp. 90–91; [3], p. 18; [4], pp. 182, 187–189. Lenin (Russ.), pp. 146ff.

published during his lifetime completely omit it. After his death, reaction set in and Kedrov was the first to denounce this lacuna, first in a review of the collective work, *Dialectical Materialism* (1954), directed by Aleksandrov[134], then in an article in *Kommunist*.[135] Since then, there have been several dozen articles and booklets on the negation of negation.[136]

Contemporary Soviet philosophers disagree on the reasons for this suppression. Some defend he who was one of their classics: others speak their minds. Kedrov wants to defend Stalin by saying that Stalin's philosophic work was not highly technical but pedagogical. "Why is it that all the questions of dialectical materialism were not taken up in *History of the Communist Party of the U.S.S.R.*? This *History* was intended for a large audience and could not in a limited space take up all the theoretical questions of Marxism-Leninism."[137] Kedrov obviously has forgotten Engels' statement: "What is then this terrible negation of negation which so bothers Mr. Dühring and which plays the same unpardonable role for him as the sin against the Holy Spirit in Christianity? A very simple procedure which happens everywhere every day and which any child can understand...."[138] Even if the law of the negation of negation is a little strong for a child, this is no reason for the complete silence of the contemporary Soviet philosopher himself. Or one would have to conclude that under Stalin they were reduced to mouthing trivialities. Kedrov's argument is not convincing.

As an escape-mechanism Vorob'ev's argument is more subtle. The law of the negation of negation was suppressed not by Stalin but by his being misunderstood by Soviet philosophers. In the first place, Stalin does not talk of the laws of the dialectic (*zakony dialektiki*) but of the characteristics of the dialectical method (*čerty dialektičeskogo metoda*). One should not, therefore, have confused the laws and fundamental traits of the dialectic. One should have understood Stalin's thought. One would then have seen that he "... profoundly stressed the ascending character of movement, which is the fundamental content of the law of negation of negation".[139]

[134] *VF*, 1954,5, 202.
[135] Kedrov [5], pp. 69–83.
[136] On the law of the negation of negation, see Dahm, H.: 'Ontologische Aspekte der sowjetischen Dialektik', *Ostprobleme* 7 (1957), 233–244; Wetter, pp. 411–423.
[137] Kedrov, p. 89.
[138] Engels [1], p. 166.
[139] Vorob'ev [2], p. 3.

All contemporary Soviet philosophers are not so kind to Stalin. Many see the omission of the law of the negation of negation as a sign of the dogmatism of the Stalinist period. The 'result of this canonisation' was unfortunate for the analysis of the relations between the old and the new.[140] Forgetting that the old quality had a positive content, one concluded that all which is not socialist has no value.[141] Kedrov himself writes: "Most of the faults committed in philosophy, in science and in technology in the years 1939–1953 are due to the fact that we did not pay enough attention to the teaching of Lenin (on the law of negation of negation)."[142] This law has now been reintroduced. Against those who see in this an attempt to Hegelianise Marxism, there is the following statement of Lenin – ending his commentary on the absolute idea which contains the main passages on the negation of negation: "... In Hegel's *most idealist* work there is the *least* idealism and the *most* materialism. 'It's contradictory' but it's a fact!"[143]

1. *Content of the Law*

There is a fact which the historians of Hegel would not be inclined to consider a fact but which well illustrates how Soviet orthodoxy interprets the law of the negation of negation. Many Western philosophers have said that spirit is negative.[144] Marxism-Leninism objects to this that negativity is in being. Does Soviet orthodoxy use negativity to explain the finite character of being? No. The law of the negation of negation which has no connection with spiritual negativity and ontological negativity is bound up with the thesis on the evolution of nature. Negativity is the philosophic category which aids the understanding of where the evolution of matter is going.

Before going into the content and form of this law, contemporary Soviet

[140] Lebedev [1], p. 27.
[141] El'meev–Kazakov, pp. 166–167.
[142] Kedrov [5], p. 82.
[143] Lenin [4], p. 192.
[144] "But that the accidental as such, separated from its bearer, i.e., that which is bound and effectively real only in its connection to something else, obtains its own being-there and a distinct liberty – this is the enormous power of the negative, the energy of thought, of the pure I" (Hegel [2], vol. I, p. 29). – "The second negative, the negative of the negative, which we find before us is the suppression of the contradiction ... but constitutes the most intimate and objective moment of the life of the spirit, that by which a subject, a person, a free being, exists" (Hegel [3], vol. II, p. 497).

philosophy begins by eliminating a basic confusion. Dialectical negation must not be confused with metaphysical negation. The 'metaphysician' conceives negation in a consistently extrinsic fashion. If a thing is negated and disappears the explanation is to be sought in a cause which is exterior to the object itself. "The metaphysicians do not see the internal origin of the self-development of phenomena and this is why in defining negation they consider it purely extrinsic to phenomena, as the result of the action of one object or of one phenomenon on another."[145] From cause to cause one must arrive at a first cause. Therefore, the metaphysical negation is idealist and transcendent. It is also a negation so 'negative' that it isolates and totally separates phenomena. "The metaphysical method pushes the negation to such a point that in the end this negation produces destruction for the sake of destruction and not for the sake of further development."[146] No more continuity. No more progress. Only nothingness. The metaphysical negation is also a sceptical and nihilist negation.

Although content and form are not to be separated, these notions are useful for explaining what the contemporary Soviet philosophers call the essence, the nature and the fundamental traits of the law of the negation of negation. This procedure has – according to Vorob'ev – the advantage of forcing the mind not to omit one of the elements of the problem. This is what has happened to Rozental' in successive editions of his *Short Philosophic Dictionary*: "In the first place, one does not give to the form its proper place in reference to content and then the content is forgotten in favour of the form. Reintroduction of the law of the negation of negation should now put an end to unilateral views."[147]

Lenin's brief remark in *Philosophic Notebooks* guides the Soviet discussion: "apparent return to the old (negation of the negation)".[148] This fourteenth element of the dialectic is the definition of the content of the law of negation of negation. With a few exceptions, the Soviets agree that the fundamental trait of this law is the "apparent return to the

[145] *O 'filosofskix tetradjax' V. I. Lenina*, p. 122.
[146] Dudel', p. 105. *Osnovy* compares this metaphysical negation to the diabolical negation in Goethe's *Faust*. "The reflections and philosophy of Mephisto in *Faust* are an example of pure negation, negation at any price" (*Osnovy*, p. 309).
[147] Vorob'ev [1], p. 58.
[148] Lenin [4], p. 182.

old".[149] The new quality is both a 'return' to the old quality and a return which is only 'apparent' (*Jacoby*).

Both aspects are essential. The idea of return indicates that movement in nature implies connection and repetition. "The dialectical negation includes the connection between the new and the old. The new does not come out of nothing but out of the old. The dialectical negation is the moment of development."[150] But the law of the transition of quantity to quality already contained this idea of connection. Thought is enriched because the law of negation of negation adds a new element, that of succession or repetition. It is important to understand that this is not a purely mechanical repetition or succession: which is why Kedrov speaks of a "repetition of a special type"[151], i.e., of a repetition which does not purely and simply restore all the elements of the phenomenon which disappears. In the new quality all the properties of the old quality do not reappear: the positive properties remain and the dead elements are left out. "The connection consists in that the new uses in its development all the positive contained in the old."[152]

Some contemporary Soviet philosophers go even farther in their analyses. Dialectical negation is not only a negation which preserves the positive content of the object which it negates, it is a negation which transforms this positive content in order to adjust it to the requirements of the new being. "The dialectical concept of repetition does not mean a simple restitution of the positive elements of the old. On a higher level, these elements undergo the critical transformation demanded by the new."[153] Quoting some biological examples, Moroz points out that one can escape mechanicism only if the integration and the transformation of the elements takes place in an organised whole. "But this diversity is not the simple sum of distinct properties but a unified, singular totality...."[154] Those who use Hegelian terminology say that the content of the new quality had through negation of negation cannot be reduced to the positive elements of the starting point but also include positivity enriched

[149] Dmitriev, pp. 100–102.
[150] Rožin, p. 78.
[151] Kedrov [8].
[152] Andreev [2], p. 195.
[153] *Ibid.*, p. 195.
[154] Moroz [1], p. 28. Xarin makes the same observation about chemical elements (Xarin, p. 89).

by negation.[155] It is already clear why this return to the old is only apparent.

Soviet thought wants to say that the law of negation of negation, though it is connection and succession, is mainly the passing to a higher level. The classical exemplification is the spiral as described by Lenin in a concentrated passage on the nature of the Marxist dialectic. "An evolution which seems to reproduce already known stages but in another form, on a higher level ('negation of negation'), an evolution – so to speak – in spiral and not in a straight line...."[156] This is a good example since the spiral is the synthesis of the straight line and the circle. "The spiral offers a clear idea of the contradictory internal process which contains at the same time the two opposed elements of movement: linear and circular movement. ... Thus, the spiral unites forward movement in a rising line with backward movement or circular movement. There results a certain return to the starting point but at a new and higher level."[157] Soviet orthodoxy distinguishes itself both from the cyclical conception of Orphism and from vulgar evolutionism.

Therefore, the spiral indicates that the law of negation of negation posits the transition to a higher plane. Between the old quality and the new one there is a difference of level. "This is not, then, a simple repetition of the traits and properties of the old by the new or a simple return to the old but a qualitatively new production with a much richer content and a much higher form."[158] Others say: "This is why development has a rising character; it is an ascending movement from simple to complex, from inferior to superior."[159] Kedrov even adds: not only more, but better. This motion toward complexity through progressive structuration as the result of the law of the negation of negation is held by the Marxist-Leninists to contain the 'rational kernel' of Hegel's teaching.[160]

This is the effect of the law of the negation of negation. But, why? Contemporary Soviet philosophers do not limit themselves to describing what happens but also try to explain it. The explanation is double. The first

[155] "The second negation includes not only the positive content preserved from the preceding phase but also the positive content of the starting point, which was *suppressed* in the first negation" (Moroz [1], p. 57).
[156] Lenin [3], p. 18.
[157] Kedrov, p. 63.
[158] Moroz [3], p. 228.
[159] *O 'filosofskix tetradjax' V. I. Lenina*, p. 127.
[160] Karabanov–Ruzavin, p. 77.

law of the dialectic teaches that contraries act on each other. Dialectical negation indicates that the contraries in conflict are not on the same level. Since there is inequality, the lower must give way to the higher. Vorob'ev here refers to Mao tse-tung who teaches that "of two aspects of a contradiction, one is necessarily the principal one and the other secondary. That which is principal plays the directive role in the contradiction."[161]

The inequality of the contraries would not explain change if the dialectical negation did not contain its own negation. Dialectical negation is then said to be immanent to beings[162], or said to be self-negation. "As distinct from the metaphysical conception, the Marxist dialectic considers the negation above all a self-negation [*samootricanie*]...."[163] That which is called dialectical negation is "a conception of negation which includes the possibility and the necessity of its proper negation in the course of further development".[164] By reintroducing the powerful negative into its ontology, Soviet orthodoxy can apply to being Hegel's teaching on the dynamic character of negativity. Opposite the section of *Science of Logic* where Hegel describes negativity as the internal source of all activity, Lenin writes a marginal note: "the salt of the dialectic".[165] Which *Osnovy* follows up: "Hegel was completely right when he called 'internal negativity' the motive force of development."[166] Thus, the content of the law of the negation of negation shows that being (of nature, of thought and of society) necessarily develops in an ascending line and also indicates that this development contains its own source. But, if the old element is both preserved and suppressed as in Hegel, should one not say that the law of the negation of negation is expressed in the form of the triad?

2. *Form of the Law*

Though all contemporary Soviet philosophers are in agreement as to the

[161] Mao tse-tung, p. 392.
[162] "Negation is an immanent moment of development, i.e., an internal and necessary moment of development" (*Osnovy*, p. 307).
[163] Moroz [1], p. 7.
[164] Kedrov [5], p. 69.
[165] Lenin [4], p. 187. And Engels: "The truly natural, historical and dialectical negation is really the motive element (in the formal sense) of all development..." (Engels [1], p. 383).
[166] *Osnovy*, p. 307.

content of this law, they disagree as to its form. Should it be expressed in the thesis–antithesis–synthesis form of the Hegelian triad, or should this be rejected as mere formalism? Both sides can argue from texts of the classics. In a letter to Engels, Marx makes fun of the triad[167], but at the same time his works are full of them.[168] Engels fills his disciples with the fear of remaining "... in the cage of the schematism of Hegelian categories", while he himself applies to nature the law of the double negation. In *Philosophic Notebooks* of Lenin, we find: "N.B. The 'triad' of the dialectic is its external and superficial aspect."[169] However, in one of his earlier works one finds that it is not surprising that a social phenomenon follow the Hegelian path because this is even found in nature.[170]

The majority of contemporary Soviet philosophers believe that the triad is not part of the 'rational kernel' of negation. It is a purely arbitrary construction which has sense only in the formalist perspective of Hegel and, therefore, has no correspondence to reality (either material or social). It is an arbitrary and idealist construction because it is the logical conclusion of the Hegelian conception of the *Kreise der Kreisen*. In other words, it contains a cyclical conception of becoming. "But, for Hegel, all development has necessarily three degrees. He makes every phenomenon fit the triad. Such a conception of the law of the negation of negation leads to the conclusion that development has a beginning and that it will have an end. It is thus no accident that Hegel develops his entire philosophic system under the aegis of the triad."[171] The triad implies not only that the world has a beginning and will have an end – which, incidentally, is a limping interpretation of Hegel – but also, as Vorob'ev writes, that "there is a coincidence of the end with the beginning of the process".[172] He supports this contention with the following text from the preface of *Phenomenology of Spirit*: "The true is the becoming of self, the circle which presupposes and has in the beginning its proper end as its object, and which is really real only through its developed actualisation and through its end."[173]

[167] Marx–Engels, vol. IV, p. 5.
[168] Marx [2], p. 87; [3], book 1, vol. III, p. 205.
[169] Lenin [4], p. 188.
[170] Lenin (Russ.ed.), p. 146.
[171] Andreev [2], p. 210.
[172] Vorob'ev [2], p. 28.
[173] Hegel [2], vol. I, p. 18.

In fact, since it is essentially idealist, it is not surprising that the triad does not correspond to reality .It is impossible to make the multiple forms of becoming enter the rigid mould of the ternary system. Examples offered include the law of Mendeleev, the multiplicity of living species, or the five stages of the development of societies. All these require that one conclude: "This absolutisation of the triad does violence to the real facts of development which often happen not in three but in two or four or five stages...."[174]

In order to both explain these facts and to preserve the 'rational kernel' of the thought of Hegel, some contemporary Soviet philosophers distinguish the dialectical negation from the law of the negation of negation. The dialectical negation thus becomes a sort of super-law which is in a sense the soul of the law of the negation of negation. "The category of negation should not be identified with the law of the negation of negation. Negation is the fundamental aspect of the law of the negation of negation – its necessary link."[175] Of course, the law of the negation of negation then reduces to a series of negations. It can as well be double, quadruple or infinite. The problem is solved. If there are five stages in society, there will be five negations. Before becoming butterfly the insect passes from larvum to caterpillar to chrysalis; the butterfly is the result of four negations of negation.[176] In all this, has the 'rational kernel' not been cracked?

Happily, this is what other contemporary Soviet philosophers think about the exercise. One talks of dialectical negation only in opposition to metaphysical negation. Dialectical negation and the law of the negation of negation are one and the same thing. Lebedev insists on the point.[177] Sanely understood negativity is the dialectical synthesis of the thesis and antithesis. In every dialectical negation are found "... the two basic directions of development: from the starting point to its negation and from its negation to the negation of negation; and the three moments: the starting point, its negation and the negation of negation."[178] The triad is not a superficial and secondary aspect but the essential element of the law of the negation of negation. The problem of how society passes through

[174] Dudel', p. 101.
[175] Rožin, p. 79.
[176] Dudel', p. 101.
[177] Lebedev [2], pp. 96–99.
[178] *Ibid.*, p. 101.

five stages is very simple. One should not confuse the dialectical cycle with the number of dialectical cycles. The example of the spiral shows that each turn which closes (apparent return to the old) is a dialectical negation, i.e., a double negation, and the next turn is also a dialectical negation, and so on. "The law of the negation of negation does not require that development happen in three phases. But this law does require a ternary rhythm. Which means that – independently of the number of qualitatively distinct stages – the negation of negation must follow the three steps mentioned."[179] Thus, because they think that the triad is the mark of Hegelian formalism, some contemporary Soviet philosophers have completely denatured the law of the negation of negation, to the essence of which belongs 'triplicity'.[180]

3. *Critical Remarks: the Objectivity and Universality of the Law*

Two critical remarks are in order on the objectivity and universality of the law of the negation of negation. The official doctrine of Marxism-Leninism defends both the objectivity and the universality of the third law of the dialectic. However, certain 'outsiders' raise problems which require certain distinctions.

Vorob'ev – who has obviously read Hegel – has perfectly grasped the fact that negativity has to be understood only in relation to mind. He, of course, does not say that spirit is negative. But, neither does he believe that negativity is in being. He holds that the movement and the development of beings is the result of the first two laws of the dialectic and not at all of the law of the negation of negation. "The law of the negation of negation is deduced from those on the unity and conflict of contradictories and on the transition from quantitative changes to qualitative changes. In itself this law explains nothing and is purely descriptive."[181] Lebedev immediately saw the danger of this position. "According to Vorob'ev, the law of the negation of negation has no efficacity in itself and only records the activity of the other laws of the dialectic."[182] In other words,

[179] Moroz [1], p. 54.
[180] Moroz [3], p. 237.
[181] Vorob'ev [1], p. 66.
[182] Lebedev [2], p. 96. "The founders of Marxism stressed, in the first place, the objective character of the dialectical negation as a real process in the development of things and phenomena – a process which depends neither on the will nor the good pleasure of man" (Karabanov–Ruzavin, p. 67).

the law of the negation of negation is not an objective law of the world. If it is only a reflection of the other laws in the mind, it loses its specific character and is nothing more than an epistemological law. Most contemporary Soviet philosophers defend the objective character of the law of the negation of negation. But, it is interesting to notice that some have the suspicion that it is not so easy to put negativity in the heart of the ontological positivity of nature.

The same differences of opinion appear concerning the universality of the law of the negation of negation. The immense majority of contemporary Soviet philosophers maintain that it is a law of nature, of thought and of society which admits of exceptions in none of these areas. In discussing the universal character of this law, Andreev writes: "In reality, the law of the negation of negation has an absolute value for all the domains of the objective world."[183]

However, it is too obvious that every change does not imply the coming to be of a being of higher ontological value. Therefore, many transformations cannot possibly be covered by the law of the negation of negation. The classical dictum *corruptio unius, generatio alterius* indicates connection and succession but does not require that the new be qualitatively superior. This is not the law of dialectical negation. This is why Tugarinov's distinction between the categories movement (*dviženie*), change (*izmenenie*) and development (*razvitie*) is very important here. Change adds to the notion of movement the idea of internal modification: and development includes the notion of progress which is not contained in that of change.[184] Therefore, Engels' third law has to be reserved for progressive changes. Which means: the law of the negation of negation does not apply to modifications in nature – except when it does apply!

Contemporary Soviet philosophers who immediately declare that this law is universal without exception are saying more than Lenin himself. In a well-known text Lenin notes that this law does not work in all cases: "There is nothing surprising if the development of some social phenomenon sometimes follows the Hegelian schema: thesis–negation–negation of negation because, ordinarily, this also often happens in nature."[185] There is a big difference between what is not rare and what is always the

[183] Andreev [2], p. 190.
[184] Tugarinov, pp. 61–62.
[185] Lenin (Russ. ed.), p. 146.

case. But contemporary Soviet philosophers are well aware that *ubique et semper* are the essential characteristics of the notion of law. Since they want the negation of negation to be a law, it must have these properties even if this means surpassing Lenin and obliging nature to do what one says. Kedrov, philosopher of science who well knows the resistance offered by the complexity of the real, is ultra-ingenious. He recalls the objection of those who oppose the universal validity of this law because it is impossible to include all particular facts. Kedrov replies that this law is in fact a general law but only if one refers to large groups. "It is, therefore, necessary not to consider a moment of development isolated from the totality of events, but to consider the ensemble of the evolutionary process."[186] In another article he says that the law of the negation of negation touches not the links of the chain but the chain as a whole.[187] This is its integral (*summierend, zusammenfassend*) character.

In his article 'The Nature of the Law of the Negation of Negation and the Sphere of its Application'[188], Rutkevič contests the universality of this law. He recalls that in microphysics, for example, the change of electrons and positrons into photons does not generate a magnetic field of a higher degree. And he adds an important consideration: if the law of the negation of negation has a general value, one would have to say that one day socialist property will be replaced by another form of property.[189] Such are the difficulties of the orthodox thesis on the universal character of the law of the negation of negation.

In conclusion we would pose a simple question. In order to show that there is a real evolution in nature, is it really necessary to invoke the Hegelian notion of the law of the negation of negation? Already at the end of the section on contradiction we pointed out that it might be better if contemporary Soviet philosophy dropped the word dialectic, since it has already dropped the thing. The same thing is true here. We have followed contemporary Soviet philosophers as they went round and round in distinctions and counter-distinctions only to end up all agreeing that the world develops according to a real progression. More modest, closer to scientific fact – therefore, more verifiable – Teilhard de Chardin talks of

[186] Kedrov, p. 10.
[187] Kedrov [5], p. 74.
[188] *FN*, 1958,4, 122–134.
[189] *FN*, 1958,4, 134.

parameter of complexity and parameter of cephalisation. Can a Marxist-Leninist really think that his doctrine would be in any way changed? It would gain in clarity what it lost in false philosophic profundity. Why force oneself – at the risk of serious equivocation – to reintroduce the category of dialectical negativity when one knows that the precise trouble with the Hegelian attempt was to introduce into nature – the realm of analytic understanding – the categories of dialectical reason?

CHAPTER VII

CAUSALITY - FINALITY

A. THE CATEGORY OF CAUSALITY

1. *The Definition of Causality*

Contemporary Soviet philosophers have developed tables of categories which sometimes contain more than fifty notions.[1] We cannot, of course, examine them all here. We will, therefore, concentrate on the important notions of causality and finality. The basic intuition of dialectical materialism is the universal interdependence of beings in nature, as foundation of the dynamic character of the world. Causality is suggested by movement. But, whether or not nature is subject to finality is of such importance that it determines the orientation of the entire philosophy.

The problem falls in the area of the universal connection of phenomena. But, are connection and causality the same? With Lenin, contemporary Soviet philosophy answers in the negative: "Causality as we ordinarily understand it is only a portion of universal connection...."[2] All causality is connection, but the inverse is not the case. Having shown the universal character of causality, Slabnov adds: "But, at the same time, there exist in the world a large number of connections which are not causal. For example, the connection between essence and phenomenon, between content and form, which are not reducible to the relation of cause to effect...."[3] Spatial, temporal and attributive relations are distinct from the causal relation. The causal relation is only a particular case of relation in general.

Since the task of science as well as of philosophy is to describe the connection between phenomena, causality is a necessary presupposition for the explanation of the world. "Science would be impossible if the causal relation were not necessary."[4] Causality assisted at the birth of science

[1] Tugarinov, ch. I.
[2] Lenin [4], p. 133.
[3] Slabnov, p. 264.
[4] *Ibid.*, p. 263.

and this could be thought to dispense philosophy from asking about the legitimacy of the use of causality. But this would mean forgetting that dialectical materialism cannot be reduced to scientific experience. Therefore, while defining the category of causality contemporary Soviet philosophers try to give an epistemological basis to the principle of causality.

Like classical philosophy, Soviet orthodoxy has a double formulation of the principle of causality: "... Every cause produces each time, in identical circumstances, an identical effect."[5] Which is equivalent to: "The same causes produce the same effects." And the other expression 'every effect has a cause' is found as "... there is no effect without cause".[6] While Brunschvicg suggested taking these statements negatively, dialectical materialism intends to give them their full ontological value.

Three fundamental notions are found in causality: temporality, ontological dependence and the dialectical connection between effect and cause. Temporal succession is the first characteristic of the principle of causality; and the Soviets are careful in explaining this. Between cause and effect there is everywhere and always a relation of priority to posteriority. "One of the essential traits of the causal dependence of a process is the temporal succession of the cause and effect. The cause necessarily precedes the effect; the effect comes only after the cause has begun to act."[7] While causal action is bound up with time, all temporal action is not causal dependence. "However, every phenomenon which precedes another in time is not its cause."[8] To hold this would be "to commit the logical error expressed in *post hoc propter hoc*".[9] Thus in dialectical materialism causality always implies the *propter hoc ergo post hoc* but causality is never adequately expressed by *post hoc ergo propter hoc.* Temporality is a necessary condition but not a sufficient condition. This is why *Osnovy* says: "One should not confuse the causal relation with the temporal succession of phenomena."[10] One can understand the philosophic meaning of this only if one sees the reason why causality cannot be reduced to the relationship of priority and posteriority.

[5] *Loc. cit.*
[6] *Loc. cit.*
[7] Bljumberg–Suslov, p. 97.
[8] Slabnov, p. 270.
[9] *Loc. cit.*
[10] *Osnovy*, p. 187.

The reason is that the relation of cause and effect is based on ontological dependence. The effect has its being from its cause: the cause is the existential principle of the effect. "The cause always *necessarily* provokes [*vyzyvat'*] a given effect. ... The causal relation is that form of reciprocal dependence between phenomena in which the coming to be [*vozniknovenie*] of a phenomenon organically depends on the existence of other phenomena without which it absolutely could not be."[11] This indicates that between cause and effect there is a real ontological relation based on the production of being. "Between the cause and the effect there is not a simple temporal succession but a *genetic dependence.* The cause produces, 'engenders', its effect."[12]

It is this ontological dependence which gives the relation between cause and effect its necessary character. "Causality is a necessary relation between phenomena, such that if one is posited the other follows inevitably."[13] Some contemporary Soviet philosophers write that "... causal relations can be essential or accidental, contingent or necessary".[14] But, these are unfortunate ways of speaking since the context clearly indicates that it is not the relationship between the cause and the effect which is either necessary or accidental, but the exercise of causality.[15] Because there is contingence in nature a given cause can itself be contingent. But a Marxist-Leninist philosopher can never mean that the cause–effect relation is accidental.[16] The principle of causality indicates not only that the cause always produces an effect, but also that this effect is proportioned to its cause. "The necessary character of causal dependence means that the totality of causes and conditions produces a completely determined effect. In other words, the repetition of the same cause in the same conditions implies the same effects."[17]

Soviet orthodoxy thus clearly distinguishes the category of causality from the other notions with which some philosophers have too often

[11] Meljuxin, p. 201.
[12] Bljumberg–Suslov, p. 97.
[13] *Osnovy*, p. 187.
[14] Meljuxin, p. 203.
[15] *Ibid.*, pp. 203–204.
[16] Tugarinov, p. 101.
[17] Bljumberg–Suslov, p. 98. Another Soviet defends the opposite position: "One and the same principle can produce different effects" (Segida, p. 27). But this is an exception and is attacked by Knjazev (*FN*, 1961,3, 99).

confused it. The cause is neither the occasion or pretext, nor the functional relation, and not a condition. *Osnovy* shows why "the cause must be distinguished from the pretext".[18] The latter refers to a superficial and fortuitous event. Thus, the rotten food given to the sailors of the 'Potemkin' is certainly not the cause of the famous mutiny and of the wonderful film of Eisenstein.

Philosophically more serious, but also more open to question, is the distinction between causality and the functional relation. Mach, the leader of many positivists, made an attempt to eliminate cause in favor of function.[19] Which earned for 'the German empirio-criticist professor' the sarcasm of Lenin.[20] Contemporary Soviet philosophers adopt the argumentation of *Materialism and Empirio-Criticism*. The functional relation has in common with causality the necessary character of the connection of the elements; but this connection includes neither temporal priority nor production. "The causal connection is much more extensive than the functional connection. It indicates the principle of change, the principle of reality while the functional relation is simply the intercorrelation of magnitudes."[21] Soviet orthodoxy is not unaware that the notion of function plays a great role in contemporary science but it can never replace causality.

It is this same ontological sense which prevents the reduction of the cause to a condition. Mill defined cause as a complex of conditions. This is an empiricist position which forgets only that the cause pertains to the being of things. "In opposition to the positivist conception which denies the essence and substance of things, Lenin taught that '... real knowledge of the cause is the penetration of a knowledge which progresses from the surface of phenomena to the substance'."[22] Conditions have a certain influence on the effect but by themselves they are incapable of producing it. Like the scholastics the contemporary Soviet philosopher distinguishes principal causes from secondary causes depending on if the action affects the object in its totality or only in one of its parts.

Contemporary Soviet philosophers also talk about internal and external

[18] *Osnovy*, p. 188.
[19] Mach, p. 276.
[20] Lenin [1], pp. 134–149.
[21] Tugarinov, p. 101.
[22] Knjazev, p. 101.

causes which brings up the question of the relationship between dialectical contradiction and causality. The classical tradition clearly distinguishes – though distinction does not mean separation – between intrinsic and extrinsic causes. Efficient causality was not found to be one of the causes which enters into the constitution of a being. Dialectical materialism senses the difficulty. In one sense, the dialectical contradiction between the opposed elements of one being is not efficient causality. But, on the other hand, Soviet orthodoxy has to hold that internal contradictions are the cause of becoming. Whence the Soviet distinction between internal efficient causality and external efficient causality. "The internal causes express the interaction of the parts of an object; the external causes express the interaction of a given object with other objects."[23] Even though they fail to see it, Soviet philosophers thus end up with a univocal conception of causality. They recognise in the end only efficient causality. And this is the paradox: that this efficient cause is inserted into the contradictory principles of being. But, if two contraries which analysis shows us to be relatives which mutually constitute each other are only efficient causes, the notion of dialectical contradiction loses any originality. The keystone of the system is gone. Here is the way the case is now stated: "The principal cause determines the process in its totality; it is [*ležat'*] in the very essence of the phenomenon...."[24] An efficient causality which becomes the structural principle of a being is quite a strange idea. For his part, Svečnikov writes: "Cause answers the question: why is there change and movement in the object."[25] We have, however, already seen that change in a being is due to dialectical contradiction!

That efficient causality is also the principle of change between different phenomena is obvious. That the exercise of efficient causality is the effect of the dynamic character of being, in turn due to tension between contraries is – even if one does not accept it – at least understandable. But it is unintelligible that efficient causality can be the constitutive principle of being. And such an affirmation is not necessary – even for dialectical materialism.

Once again, this misadventure is due to the confusion between the realist attitude (here one could even say 'Aristotelian') and the Hegelian

[23] Svečnikov, p. 149.
[24] Slabnov, p. 264.
[25] Svečnikov, p. 150.

dialectical conception. In Hegel, causality is compatible with the dialectic precisely because causality is not conceived in a realistic way. Cause and effect are not really exterior to each other because reciprocal action, which is the *Aufhebung* of the cause and of the effect, shows that there is only one and the same cause which negates itself as substance in its effect and which becomes real cause only by producing its effect. In such a view causality can be considered as a moment in the dialectic of categories. But the efficient causality which one finds in the *Physics* of Aristotle cannot be the prop of the dialectic of categories.

Contemporary Soviet philosophers would have been spared this confusion had they paid more attention to Lenin. "Reading Hegel on causality, one is struck by the fact that he devotes little attention to this theme so loved by the Kantians." And he himself provides the answer to the question: "Why? Because, for him, causality is only *one* of the determinations of the universal connection which he had grasped more profoundly and more universally, *always* and from the beginning stressing *throughout* his exposé this connection, the reciprocal transitions, etc...": and Lenin concludes: "It would be interesting to compare the *birth pangs* of neo-empiricism (or 'physical idealism') with the solutions, or – more exactly – the dialectical method of Hegel."[26] It does not seem too much to say that this text at least hints at an incompatibility between an ontological philosophy based on causality and a philosophy of dialectical reason.

The same difficulty arises in the case of the notion of reciprocal action. Soviet orthodoxy thinks it is adding something to this Hegelian theme. But the different explanations thereof are either logically contradictory or banal. According to the contemporary Soviet philosopher, the metaphysician has a mechanist conception of causality. He reduces action to simple shock but forgets the reaction. For him, the cause is only cause and the effect is purely passive. Dialectical materialism rejects this narrow view and replaces it with the theory of the dialectical connection between cause and effect. "Dialectical materialism has overcome the narrowness of the metaphysical conception of causality. It has proved that there is a reciprocal relation between cause and effect. 'The cause produces an effect and this reacts on the cause and modifies it.'"[27] This is the general principle.

[26] Lenin [4], p. 134.
[27] *Osnovy*, p. 193.

In trying to show that this connection is dialectical Andreev, a 'Hegelian' Marxist, achieves unintelligibility by maintaining that the interaction in question is simultaneous. "Every phenomenon can be at the same time cause and effect."[28] However, he himself noted a few pages before this text that priority and posteriority are essential conditions of causality.

Other formulations are found to avoid this logical contradiction. "But, one should note that if we take two distinct phenomena, one is cause and the other effect, but one cannot take the place of the other. In this sense, cause and effect are not convertible."[29] Meljuxin admits that dialectical connection simply means that cause becomes effect and effect, cause, only under different points of view.[30] This is perfectly true and what all 'metaphysicians' have taught since the beginning: *Causae sunt ad invicem causae sed in diverso genere.* There is no need for dialectical thought here. However, the metaphysician will be surprised to find out that this view of the dialectical connection frees him from further research on the origins of the causality of this world. "Interaction is the internal cause (*causa sui* – cause of self) of the changes of phenomena."[31] The writer goes on to say that Engels was thus correct in seeing this dialectical connection as the real final cause. Therefore, God does not exist? Perhaps, but the mind would need a more serious demonstration.

Since the attacks of Hume, the principle of causality has been the center of vigorous disputes. Dialectical materialism defends the validity of this principle with an argument which is peculiar but fully consonant with its idea on the nature of the categories.[32] Contemporary Soviet philosophers defend the ontological value of causality, while maintaining an empiricist position on the problem of the epistemological origin of the principle of causality.

Against all comers, Soviet orthodoxy defends the objective value of the cause–effect relation. And the point of view is authentically Aristotelian. "There is a conflict between materialism and idealism on causality. ... Materialism recognises that the causal connection of phenomena is objective, i.e., independent of will and consciousness...."[33]

[28] Andreev [2], p. 253.
[29] Slabnov, p. 268.
[30] Meljuxin, p. 201.
[31] *Osnovy*, p. 194.
[32] See above, ch. III, pp. 36–38.
[33] *Osnovy*, p. 188.

Thus, dialectical materialism is opposed both to the psychological theory of Hume and to the transcendental idealism of Kant. Wittgenstein, who reduces causality to a 'simple logical necessity' and concludes that "causal sequence is pure superstition"[34], is the model of absolute error. To all types of subjectivism (empiricist or idealist), Soviet philosophy opposes the recognition of the fact of causality. Contrary to what is asked by idealism, the principle of causality does not have to be proved *a priori* or deduced because it is a principle which is immediately perceived by the intellect on the basis of experience. Transcendental idealism 'posits' causality because without it the world would be an inexplicable chaos. Dialectical materialism answers that one does not have to put causality into nature since it is already there.

Soviet philosophers would agree with Ullmo: "We do not have to ask ourselves if it [causality] is legitimate, if the world is in fact subject to causality, because the posing of the problem is reversed by scientific activity itself."[35] Science develops by attaining that which is subject to causality.

But, science is not an adequate method for grasping the world in all its depth. Only philosophy attains the totality of the real. So contemporary Soviet philosophers offer a truly ontological justification of the principle of causality. The basic difficulty on the validity of causality is well described by Laporte: "To say causality is to say *relation* between an effect and a cause; and relation implies duality of terms, i.e., difference between effect and cause. But, the proper of two different things – as Descartes showed – is that one can be thought and, ... more, can exist without the other. Therefore, one is not obliged to posit the cause when one posits the effect and vice versa."[36] If the cause can be conceived without the effect, it is obvious that the cause–effect connection has to be sought in some kind of *a priori* synthesis. Knjazev sees the difficulty: "To conceive the cause and the effect as two isolated events or situations ... leads not only to the negation of the necessity or of the unity of the connection between the cause and the effect, but also to agnosticism."[37]

[34] Wittgenstein, p. 67.
[35] Ullmo, p. 135.
[36] Laporte, J.: 'L'idée de nécessité', in *Nouvelle encyclopédie philosophique*, No. 30, p. 71. (Quoted by Ullmo, p. 143.)
[37] Knjazev, p. 101.

Therefore, dialectical materialism – like any realistic philosophy – teaches that the cause and the effect cannot as such be conceived one without the other. "Cause and effect are correlative concepts."[38] There is a necessary implication between them – a logical implication which finds its ontological foundation in the communication of being by cause to effect.

A realist philosophy would stop here in its analysis of the principle of causality. But dialectical materialism thinks that it is necessary to go on to explain the origin of the principle of causality. And, once on Hume's home ground, dialectical materialism differs very little from him. Of course, Soviet orthodoxy does not hold that the origin of the idea of causality is psychological repetition – this would be subjectivism.[39] For contemporary Soviet philosophy the idea of cause comes from historical-social experience. "The criterion of truth of the grasp of causality does not come either from the simple alternation of phenomena nor from their repetition, but from multi-formed human practice."[40] This ancestral practice is precisely the mark of historical empiricism which we have already seen to be one of the basic traits of Marxism-Leninism.[41]

2. *Causality in Microphysics*

Since there is a plethora of Soviet writings on causality in microphysics, we will have to limit ourselves to rapidly tracing the main tendencies.

There existed an extremely reactionary tendency to exclude all scientific discoveries of modern physics from the holy doctrine. In 1953 Maksimov wrote: "Einstein's conclusion is obviously anti-scientific and in particular violates the principle of causality."[42] At present, all contemporary Soviet philosophers have come around to accepting the discoveries of science. Already the theory of relativity, but especially quantum theory, seem to significantly limit the field of application of the principle of causality. Many Western scientists repeat that the principle of causality loses some or all of its value in microphysics. The following text of Heisenberg states the position of Einstein, Pauli, Jordan, etc.: "Contemporary

[38] *Osnovy*, p. 187.
[39] Svečnikov, p. 139.
[40] Slabnov, p. 270.
[41] Cf. above, ch. III, pp. 36–38.
[42] Maksimov, p. 191.

atomic physics abolishes the law of cause and effect or, at least, limits its application to such an extent that it becomes impossible to properly speak of a regular determination of change."[43] The absence of rigorous causality leads to indeterminism which is anathema for dialectical materialism.

In the opinion of contemporary Soviet philosophers, the old physics – far from damaging causality and determinism – confirms the absolute validity both of the principle of causality and of the principle of determinism. This is a special case of the methodological thesis that science is the foundation of diamat. How have the Leninist philosophers found a confirmation of their views in a theory which they themselves considered for a long time to be incompatible with their doctrine?

The reversal became possible as soon as Soviet orthodoxy saw that one could separate the scientific theories from the philosophic views which had been based thereon by physicists or popularisers. "Contemporary physical idealism tries in every way to draw from quantum physics certain conclusions which would 'establish' the anti-scientific theses of agnosticism...."[44] A good thing to try, but very difficult! It is, therefore, not surprising that the Soviets have come up with two different solutions: that defended by the philosophers, which tends to conserve the category of causality by distinguishing it from the scientific notion of causality; and that held mainly by the physicists, which holds that the causality discovered by modern science is a precious contribution to the understanding of the philosophic category of causality.

Classical physics knew only dynamic causality. The causal connection between the consequent and the antecedent was such that adequate knowledge of the antecedent permitted exact knowledge of the consequent. This dynamic causality thus lay at the base of an absolute determinism.[45] Microphysics, however, thinks that the ideal of Laplace's physics is unattainable because it is impossible to simultaneously measure both the spatio-temporal variables and the dynamic variables of an individual phenomenon. This physics nonetheless continues to describe the 'real' but

[43] Heisenberg, p. 225.
[44] Vonsovskij, p. 173.
[45] Soviet physicists and philosophers define the notions of dynamic causality and statistical causality in the same way as their Western counterparts. Cf. Terleckij, Ja. P.: *Dinamičeskie i statističeskie zakony fiziki*, Moskva 1950.

it does not try to go into the detail of individual phenomena which are not within its grasp: it tries to find the probable state of the ensemble of particles. Thus, microphysics replaces the notion of dynamic causality with that of statistical causality. Soviet thought is thus faced with a double concept of causality, and it asks if statistical causality really deserves its name and, if so, what are the relations between these two forms of causality.

Knjazev regrets that some of his colleagues teach that statistical causality is a species of philosophic causality. To say statistical causality or probabilist causality, is to say absence of necessary connection between the antecedent and the consequent. "Statistical regularity is precisely the regularity of a large number of events which in themselves are contingent: it does not abstract from contingence since the nature of this regularity consists in the addition of contingent facts which are mutually compensatory. This is why the necessity reflected in the statistical law is different from that expressed by the causal connection...."[46] For this writer, the very notion of statistical causality is contradictory because it is a causality where the connection between cause and effect is not necessary. Which leads to an indeterminist conception of causality. The so-called statistical causality is in reality only a statistical connection. So "attempts to identify causality with connection in general deprive causality of its specific character and leave us defenceless in the fight with indeterminism".[47] This is a radical solution but one which isolates philosophy too much from science to be widely held.

Most contemporary Soviet philosophers have no difficulty in admitting that statistical causality is a true form of causal dependence even though it is qualitatively different from dynamic causality. 'Idealist' physicists lock themselves in the alternative: either mechanical causality or no causality at all. They thus confuse the concept of cause with one of its types: "the criterion of causality expressed by mechanical determinism is not applicable to quantum physics. But mechanical determinism is precisely not a universal formulation of the criterion of causal connection."[48] Fok gladly concedes to Bohr that the concept of causality is not employed in the same sense by quantum physics, but he immediately adds: "This is

[46] Knjazev, p. 104.
[47] *Ibid.*, p. 105.
[48] Fatalijew, p. 48.

true but it cannot be used to prove the invalidity of the principle of causality."[49] Dirac and Pauli replace causality with the principle of indetermination because they do not pay attention to the fact that although the theory of quanta allows great expansion of knowledge of the physical world, it nonetheless remains an approximative theory. In other words, this wonderful instrument, microphysics, does not completely inform us about the real. By forgetting some 'hidden parameters' once can conclude to the invalidity of the principle of causality. "But it [quantum physics] abstracts from a great number of variables which would explain why an individual process does not produce the same effects as other phenomena under the same circumstances and with the same causes."[50] Whence *Osnovy* concludes: "The principle of causality proves only that all phenomena have a causal dependence. How causality is exerted in each concrete case, how to determine with absolute accuracy the coordinates and the speed of a particle, is another question...."[51] Just because the cause of a phenomenon is hidden from us is no reason to conclude that this phenomenon has no cause.

Statistical causality seems tied to an indeterminist view of nature. Dirac believes that the electron chooses among several possibilities and Jordan – following up – talks about the capricious liberty of the elementary particles. Neither Schrödinger nor de Broglie wants to go this far. Soviet orthodoxy adopts the arguments of de Broglie whose article, 'Will Quantum Physics Remain Indeterminist?', was even translated and published in *Voprosy filosofii*.[52] However, Leninist philosophy also has an original solution. The nature of statistical causality has to be viewed in the context of the notions of necessity and contingence. There are different positions in reference to this point. A first group adopts the teaching of Aristotle for whom chance is only the objective aspect of our ignorance. Since matter is 'infinite in depth', neither man nor humanity will ever succeed in fully understanding it. But there is a rigorous relationship between antecedent and consequent: nature is subjected to determinism. And the proponents of this point of view refuse to put dynamic and statistical causality on the same plane. The first is the only real causality

[49] Fok [1], p. 124.
[50] Bljumberg–Suslov, p. 132.
[51] *Osnovy*, p. 192.
[52] De Brojl', pp. 105–118.

and the other is only a functional connection. From the fact that statistical regularity does not touch the singularity of microparticles, one cannot conclude to an indeterminist conception since, strictly speaking, the problem of determinism is tied to that of causality *stricto sensu*.[53]

Eminent physicists and philosophers in the Soviet Union reject this dogmatic attitude. They are presently developing a much more sophisticated theory of causality and determinism. In the first place, it is inaccurate to say that the proper domain of dynamic causality is classical physics while that of statistical causality is microphysics. There is, in fact, compenetration. Meljuxin notes that statistical causality has a place in biology, in psychology, in the social sciences, as well as in microphysics.[54]

But they add – and this is much more important – dynamic causality is far from the fundamental form of causality. "The dynamic laws are prior and inferior in the process of our discovery of the world; statistical laws give a much more perfect reflection of the objective connections of nature: this is a posterior and higher stage in knowledge."[55] Thus, in a strong reversal of traditional views, some Soviet physicists end up admitting that the dynamic laws are nothing more than a superficial manifestation of the process of interdependence of physical phenomena. This is because the dynamic laws are themselves based on the statistical laws.

One could save the thesis of determinism by holding with de Broglie that quantum theory is not necessarily a limit–theory. Since it does not cover the whole of the real, nothing makes it *a priori* impossible that a development of the theory eliminate indeterminism. This is Terleckij's position[56], i.e., that indeterminism is based on partial ignorance.

Taking their risks, some contemporary Soviet philosophers turn away from the 'hidden parameters' – less perhaps from fear of using 'paper parameters' than out of fidelity to what they consider to be the structure of the real. The tradition does talk of the determinism of nature: but this

[53] Knjazev, p. 105.

[54] Meljuxin, p. 239.

[55] Mjakišev, p. 114. Monin regrets that some contemporary Soviet philosophers establish a parallel between the development of science and the substitution of dynamic regularity for true causality. "G. Ja. Mjakišev conceives the history of the development of the sciences as the irreversible replacement of dynamic causality by statistical knowledge" (Monin, p. 132). It seems then that Brunschvicg's *L'expérience humaine et la causalité physique* has followers in the Soviet Union!

[56] Terleckij, Ja. P.: *Žurnal eksperimental'noj i teoretičeskoj fiziki* **35** (1958) 452. Viz'e, pp. 91–106.

is a dogmatic thesis. "To admit only the determinist form of regularity and to refuse – despite the evidence – to recognise the more general form which is probability, is to base oneself on dogma and not on the properties of nature itself."[57] There is thus no need of avoiding the obvious fact that quantum physics is indeterminist. "An exact interpretation of the description which quantum mechanics gives of the properties of atomic phenomena completely excludes the determinist point of view."[58] Quantum physics is indeterminist not only because it is a partial physical theory but because it attains a reality which is not determined. This is the position of von Neumann who wanted to use this radical contingence for a philosophic negation of the validity of the principles of sufficient reason. "The multiplicity of values which we find for one and the same physical magnitude is no longer due to our ignorance: it is in the very essence of things; it is nature itself which goes beyond the principle of sufficient reason."[59] Fok and some other contemporary Soviet philosophers certainly do not deny the value of the principles of sufficient reason or causality. They simply say that statistical causality is indeterminist. Some of their colleagues are scandalised and Fok, etc. counterattack by showing that by not admitting this point of view one leaves Marxist-Leninist orthodoxy.

Their demonstration is based on the thesis of the dialectical unity of the necessary and the contingent. All contemporary Soviet philosophers accept this principle. Fok, Meljuxin and others show that this contingence is not objectively real if it is based solely on our ignorance. It is interesting to note that it is a scientist who denounces the frequent confusion between logical and real necessity. A confusion which is not distinctive of the Soviets since it is already to be found in Aristotle.[60] If the contingence of a phenomenon is only due to unforeseeability by man, then there is no real contingence. Which leads at least to a fatalistic view of the world and at most to an Orphic cyclical view. "Nothing new appears in the world. And we are driven to fatalism and to the theory of the predestination of the totality of existence."[61] This is anti-Marxist!

[57] Fok [2], quoted by *VF*, 1959,4, 131.
[58] *VF*, 1959,4, 132.
[59] von Neumann, p. 208.
[60] Cf. Mansion, p. 329.
[61] Meljuxin, p. 223.

It is, therefore, necessary to give contingence of nature its due place and to be bold enough to draw all the conclusions even if they contradict the dogma of determinism. Dynamic causality is the expression of necessity (thus, of determinism). Statistical causality has another basis. It depends on what Fok calls 'potential possibility' and what Meljuxin calls 'real possibility'. Fok writes: "In the new conception of the principle of causality and in line with this conception, this principle is immediately related to probability, i.e., to potential possibility, but not to reality as it is given in existing events."[62] Meljuxin distinguishes objective and real possibility. The first is the quantitative measure of the possibility of any event: like that of getting 3 in throwing dice. Real possibility, on the other hand, is that which contains in itself the principles of its actualisation (Fok's potential possibility). Matter which is infinite in depth contains an infinity of possible qualities. Its proper dynamic char acter enables it to 'realise' them. But this realisation even though not uncaused cannot be foreseen since the consequent (the realisation) is irreducible to the antecedent (the cause). It is irreducible for the decisive reason that causality produces a surplus of being. "It must be admitted that in development there is not only the realisation of the pre-existing possibilities but also the creation [*sozdanie*] of essentially new possibilities which were not given in previous states of matter."[63] Meljuxin later writes a phrase that might well have been found in a work of Aquinas: "... *Action always contains something new in comparison with its cause.*"[64] The effect does not have a greater ontological value than the acting agent; but there is more in the second acting agent than in the first acting agent. Since action results in a new phenomenon which is irreducible to its antecedents, it is evident that a determinist view does not correspond to reality.[65] But for Fok and Meljuxin this indeterminism which is not an absence of causality is precisely based on a more profound understanding of the principle of causality. It is because action is not reducible to being

[62] Fok [2], (*VF*, 1959,4, 131–132).

[63] Meljuxin, p. 229.

[64] *Ibid.*, p. 230. This is why the Thomist school developed its famous theory of physical premotion.

[65] "The causal connection between heat and the speed of movement of the various particles of gas is expressed in the form of chance" (M. I. Šaxparonov in *Dialektičeskij materializm i nekotorye problemy fiziki i ximii*, p. 54). A causality without regular succession was defended by Meyerson when he distinguished causality from legality.

that one cannot on the basis of a knowledge of being describe all the potentialities of action.

But, action is itself inseparable from matter. While statistical laws allow one to determine the most probable phenomena in an ensemble, as soon as one conceives the totality of properties on the level of matter, one must recognise that every phenomenon is equally probable. "Because matter is structurally inexhaustible, the number of its possible states is infinite. This is why for matter in its totality there are no states more probable than others."[66] The author thus comes to the affirmation of pure contingence at the level of the ultimate but is reassured by the assurance that normal determinism is preserved on the level of macroscopic physics. One can here see the long road travelled by contemporary Soviet philosophers since Maksimov condemned the theory of relativity.

The differences of opinion are so great that one cannot talk of a 'Soviet position' on the principle of causality. At most, there are two constant elements. The first is that the concepts of cause and effect are tied to temporality. For Kant, too, causality is the relation by which phenomena determine their order of succession in time. *Critique of Pure Reason* develops a formulation of the principle of causality for the physical world as the experimental sciences would describe it. Dialectical materialism says that causality is not an *a priori* but an ontological principle. It nevertheless preserves the notions of priority and posteriority to show that the principle of causality has validity only in the world of the *physis* and has no transcendental application.

The other certainty is the universal and necessary character of the principle of causality: no effect without cause. But the range of this assertion is considerably limited because of the differences of opinion on the nature of causality. Between causality as seen by Knjazev and that conceived by Fok the difference is so great that one can hardly say that the two notions are even analogical.

B. THE CATEGORY OF FINALITY

1. *The Nature of the Final Cause*

In the tens of thousands of pages of *Voprosy filosofii* there is only one

[66] Meljuxin, p. 241.

article on the problem of finality. Works on categories deal with the subject only marginally in the section on causality. One has, therefore, carefully to search works on evolutionism and the thought of Darwin to find the rare philosophic elements which make it possible to form an idea of the contemporary Soviet position on the principle of finality.

This lacuna causes another. Contemporary Soviet philosophers have not studied the important notion of totality. Blauberg recognises this in the few pages he devotes to the categories of whole and part and adds that these notions would be very useful for the study of such things as quantum physics, biology, psychology and society. Finality and totality which are complementary categories have not been studied as they should have been. The Marxist-Leninists make a lot of declarations but they show that they do not understand the problem.

Soviet orthodoxy gets no help on this problem from the classics since neither Marx, nor Engels nor Lenin dealt *ex professo* with finality. They are reduced to quoting two letters where Marx and Engels announce that Darwinism has sounded the end of finality. Engels writes to Marx that "in this domain, where teleology had not yet been defeated, it has been".[67] Two years later it is Marx who says that Darwinism "despite its insufficiencies, has dealt, for the first time, a mortal blow to 'teleology' in natural science, and empirically explained its rational meaning".[68] Teleology is dead: but, what was this doctrine?

Contemporary Soviet philosophers carefully distinguish the categories of useful (*celesoobraznost'*) and of end (*cel'*) from that of causality. The useful is that which befits a living being and the end that which is the object of an intention. Thus, the three areas are clearly separated: causality covers the whole of the real; the useful covers all that is living; and the end is reserved to man.[69] Finality is thus neither in the organic world nor in the inorganic world. "Marxist materialist philosophy is opposed to teleology, i.e., the doctrine which puts ends in nature."[70] "Finality is only to be found in human activity. ... Except for the action of man on nature, there is not and cannot be any finality in nature."[71] This

[67] Marx–Engels, vol. II, p. 447.
[68] Marx [1], p. 150.
[69] Tugarinov, p. 106.
[70] *Ibid.*, p. 107.
[71] Bljumberg–Suslov, p. 108.

affirmation, which follows from Marxist orthodoxy's definition of finality, is found on every page.

There is finality when there is intentional action. Finalised action and conscious action are reciprocal terms. "The end exhibits the conscious connection of man with his activity, with the means required by his action, with the object and, finally, with the result. ... The end always includes foresight."[72] Because the end is the idea, those philosophers who say that nature is subject to finality are guilty of vulgar anthropomorphism. They project into nature that which is proper to free and conscious action. The materialist philosopher therefore concludes that teleology is pure mysticism.[73]

To say that the end acts in nature is to ultimately explain natural processes with the help of a notion which has no real content. One must, in fact, distinguish between the end as the intention of an agent and the end as the object of the action. "Thus, it is necessary to distinguish the idea which expresses the determined end or the objectified tendency of human activity from the realised end or the result of this activity...."[74] This is the classic distinction between *finis in intentione* and *finis in executione*. The transposition of finality to nature means "the explanation of phenomena by means of their end result, the acceptance of that which does not yet exist as a cause".[75] Teleological explanation is pure and simple mystification.

Metaphysical thought did not succeed in escaping the following dilemma: either explanation by chance or that by finality. Darwin found the third solution: neither the final causes of Aristotle nor the change of Empedocles, but natural selection. "The theory of natural selection is based on the principle of utility, so called by Darwin because it establishes that every detail of the structure of organisms is preserved only in function of its vital utility which is a primordial factor in the formation of the organs."[76] Whence the question: what decides that an act is useful for a species? Is it a conscious act? Tugarinov answers: "No. It is the result of the spontaneous adaptation of the organism to the conditions of life; it is the result of an unconscious process of adaptation of organisms."[77]

[72] Fedorov, pp. 66–67.
[73] *Ibid.*, p. 63.
[74] *Ibid.*, p. 67.
[75] Gurev, p. 123.
[76] *Ibid.*, p. 130.
[77] Tugarinov, p. 106.

The difficulty now falls on the organism. Why is the living being like it is? Is it an organised whole or a simple aggregate? Unfortunately, contemporary Soviet philosophy has hardly touched this essential problem. The only article on the subject which we have found authorises the following conclusions. A living being is neither an aggregate nor a totality constituted by a formal principle extrinsic to it. Diamat stresses the useful Aristotelian distinction between the whole (ὅλον) and the sum of the parts (πᾶν).[78] But it accuses him of seeing in entelechy the formative principle of all that is. In their discussions with contemporary biologists, Soviet philosophers treat the theory of form in its various forms – 'holism' or the 'vital factor' of Driesch – as up-dated versions of the entelechy of Aristotle. All these theories reintroduce finality in the guise of internal or immanent finality. "It is not by accident that idealist philosophy tries so hard to develop and strengthen teleological concepts by putting forward the idea of an internal finality which is supposedly inherent in organisms (the theory which is basic to vitalism)."[79]

From the fact that the organic totality is qualitatively different from the sum of the parts, one cannot conclude that the whole is finalised. That which causes the irreducibility of the parts in reference to the whole is their dynamic connection and their mutual interaction. In this interaction, the whole reacts not only on the connection of the parts but also on the organism as a whole.[80] Undoubtedly, Blauberg wants to say that the organism is 'totality' provided the word is taken not in the passive sense of a constituted totality but in the active sense of a constituting totality. Thus, even if the organism is not an aggregate it is of and by itself a united whole. For Soviet orthodoxy, the different parts of a living being as well as the universe as a whole manifest the tranquillity of order. "The Marxist dialectic by no means denies the order of nature. The world is not a chaotic collection of phenomena. There is an order which is expressed in the material unity of the world, and in the regular character of the development of matter."[81]

A philosophy which was still naive saw in this world harmony the effect of an internal or external finality. But the progress of knowledge has

[78] Blauberg, p. 42.
[79] Gurev, p. 124.
[80] Blauberg, p. 47.
[81] Štraks, p. 80.

made it possible to explain this order solely through natural causes. "Without denying the appearances in nature of that which one calls finality, the scientist derives them from natural laws."[82] All efforts to build a bridge between causality and finality are doomed to failure.

2. *Critical Remarks*

There is a striking contrast between the philosophic interest of the Marxist theses on causality and uninteresting character of their affirmations on finality. Here more than anywhere else dialectical materialism is victim of its anti-religious prejudice. It is this which keeps them from honestly dealing with the question of finality. It is only too easy to show that they have misunderstood the problem because they remain prisoners of old thought-habits.

They think that the metaphysician is a dualist because he wants to play on two keyboards: that of causality for the inorganic world and that of finality for the organic world. "The world has thus become the object of a dualist interpretation: natural and causal in reference to inorganic nature; supernatural and teleological in reference to living nature."[83] Aristotle, the father of 'metaphysicians', never maintained in his *Physics* the theory of 'either–or'. Efficient cause and final cause each have their specific character and always act concomitantly. Ross accurately sums up Aristotle's thought in the following text: "Two things can be cause of each other: exercise is the efficient cause of health and health is the final cause of exercise. In other words, mechanicism and teleology are not mutually exclusive: if *A* mechanically determines *B*, it can be also that *B* teleologically determines *A*."[84] One has to avoid accusing an opponent of holding an opinion he never held if one wants to really refute him.

But on the most essential point Soviet orthodoxy misses the problem entirely. The teleologist is accused of anthropomorphism: contemporary Soviet philosophy would probably be surprised to see the compliment returned. An anthropomorphist is he who believes that finality requires consciousness and fore-knowledge of the end. To attribute to nature the idea of putting segments in a melon so that it can be eaten by the family is strictly from Bernardin de St. Pierre! If contemporary Soviet philosophers

[82] Gurev, p. 147.
[83] *Ibid.*, p. 126.
[84] Ross, p. 105.

feel obliged to refute this 'philosophical' idea, that is their affair. But to think that thereby they are rid of the idea of finality is laughable. Let us take another look at Aristotle. The author of the *Physics* affirms that the natural world is subject to final causality but, since he is a philosopher, he well knows that this nature is not intelligent. Tannery writes: "Aristotle in no way considers nature to be an intelligent being which acts deliberately. Empirically, it is for him the ensemble of those forces the interplay of which results in perpetuating the order of the cosmos."[85] Gurev has certainly seen that "the word finality implies an action toward an end"[86] and this idea frightens him. But a careful reading of the *Physics* would comfort him because – according to a reputable commentator on Aristotle – this end is nature itself. "Nature acts in view of an end and this end is nature itself: these words sum up Aristotle's doctrine on natural finality."[87] To have the end in view means simply that the action of the agent depends on its nature because the end is the form.

The Leninist philosophers are too timid when faced with the principle of finality. Soviet thought is obviously afraid of finalism because it is over-awed by it like Kant was. Philosophers know that the final cause has always been one of the royal roads to the establishment of the existence of God. But the efficient cause is also such a road. Orthodoxy in the Soviet Union, however, thought it possible to use the principle of causality while ridding it of its transcendent import. But it thinks that the same operation is impossible with the principle of finality. This is why we say that it is over-awed and allows itself to be scared off.

It is striking to note the sense of deliverance in Soviet works at the thought that Darwin has finally rid reason of the burden of finalism. Ruyer has well understood the attraction of philosophic Darwinism. "The popular success of Darwinism is due to the fact that it seemed to eliminate finalism, that it freed the spirit from the burden of believing in spirit, that it seemed to reconcile the finality of fact with the mechanist and

[85] Tannery, P.: 'Des principes de la science de la nature chez Aristote' (from the volume of the International Congress of Philosophy, Paris, 1900, reprinted in *Mémoires scientifiques* 7 (20) 299–307. Paris–Toulouse 1925 (10) 304). Quoted by Mansion (p. 270), who adds: "We can accept the sentence of Paul Tannery who excellently sums up the general interpretation to be given to all those anthropomorphic passages where nature is presented as a unique being."

[86] Gurev, p. 121.

[87] Mansion, pp. 251–252.

determinist explanation."[88] This is why Soviet Marxism sees in Darwin a natural ally. "The works of Darwin play a great role in the fight against religion because they show how the notion of the useful is explained by solely material causes."[89] This is a hasty conclusion which does not pay enough attention to the factual complexity of evolution and to its philosophic meaning.

One can even say that it is not exactly true to the words of Engels. According to Dühring, finality applies to organic nature. Engels' reaction is tempered. He rejects the position of Dühring to the extent that the adaptation of the organisms would be the effect of a conscious and intentional representation. But he does not reject *a priori* the question of finality. "It would be too much to deal here with the extent to which the application to the organic world of the ideas of end and means is justified and meaningful."[90] What Engels does know is that the admission of internal finality "... constantly leads people who do not have a complete philosophic formation to an easy supposition of conscious and intentional action".[91] All the Soviets conclude that Engels rejects finality. The text is not that formal.

On the other hand, one has to point to the incoherence of the Soviet position. They reject their own factual position. In line with their theory of the dialectical contradiction, they affirm that matter is the creator or producer of forms. Meljuxin sees in the action described by quantum physics not only the simple fact of functioning but also the creation of qualitatively new forms and structures. The atom is not a mechanism all put together and working. It is incessant activity: it 'forms itself' without stop. This is a formation which is not incoherent but which results in an order both in the microcosm and the macrocosm.[92]

[88] Ruyer, p. 176.

[89] Platonov [2], p. 327. "Darwinian theory has rid biology of teleology, thus striking a smashing blow against the creator" (Gurev, p. 74).

[90] Engels [1], pp. 99–100.

[91] *Ibid.*, p. 100.

[92] Or one can invoke chaos when it is needed to prove a point: "The description of the creation of the world in *Genesis* repeats at each step: 'And God saw that it was good...' But organic nature is the constant arena of a battle for survival which is often bloody and in which the individuals of one species often devour those of another. This is why one cannot in any way talk about divine grace, a rational goal which is predetermined for nature" (Gurev, pp. 74–75). This is not even Le Dantec! – But there is such a confusion among contemporary Soviet philosophers when they meet the problem of

The last two laws of the dialectic – especially that of the negation of negation – serve as basis to the conception of the progress of the universe. There is a direction for development: movement is oriented from the lower toward the higher according to a growing complexity and a constant ontological enrichment. What is more – with the exception of a few zigzags – progress is irreversible.

Order, progress, direction. These are notions which develop that of final cause. Order implies finality. This also a favorite thesis of Aristotle as summed up by Mansion: "On the other hand, in *order* he finds a new expression for finality. The connection of one to the other seems so evident that he does not feel obliged to explicate it...."[93] Very naturally, Chambre establishes the equivalence between the idea of progress and that of end: "And one can say that it is an internal finality, the search for the end to be reached, which governs the conflict of contraries whence results progress."[94] The notion of direction as developed by the orthodox Marxists in no way reduces to any 'vectorial trend' or other. Classical philosophy distinguishes in the notion 'end' the two concepts of object (*Ziel*) and of sense (*Zweck*) and thinks that the latter contains the most fundamental idea in finality. But the 'direction' of the Marxists is precisely this 'finality-sense' of traditional philosophy.

Although Soviet orthodoxy does not wish to give a mechanist explanation of nature, it cannot get rid of the ontological content of finality. The Soviets do not seem to have seen that the reintroduction of the law of the negation of negation into their synthesis requires a serious revision of their teaching on finality. After all, the fact of admitting in nature the existence of a finality which does not lead to the transcendent causes no more of a problem than the thesis of a purely immanent causality. But they are afraid that the recognition of a finality in nature will lead them to a recognition of a finality outside of the world. It happens that a philosophy of finality requires a natural theology. τάξις πᾶσα λόγος.[95] All order is reason. But it is not enough to note that the real is rational;

God, that one has come to expect anything. Even Tugarinov, whom we respect as a thinker, has written: "Transcendental teleology, i.e., a force exterior to nature, is that which gives nature its determined goals. *Grosso modo*, God pulls nature along as one pulls a bull by the horns" (Tugarinov, p. 108).

[93] Mansion, p. 270.

[94] Chambre, pp. 271–272.

[95] Aristotle [2], VIII, I, 253, a13.

one has to prove it. But this can lead where one might not like to go. In any case, putting the dialectic on its feet can never be limited to giving to matter what Hegel gave to spirit. Reason and finality cannot be so easily suppressed. In fact, was it not Marx who wrote that reason "has always existed but not in the form of reason"?[96] Can Soviet orthodoxy tell us what reason is which does not have the form of reason? It is obviously easier to refute Bernardin de Saint Pierre than to answer this question, which is the real challenge of finality.

[96] Marx [1], vol. I, p. 381.

CONCLUSION

It has been some ten years since Stalin ceased to rule over the Russian people, and contemporary Soviet philosophy is no longer obliged to repeat the theses of *Dialectical Materialism and Historical Materialism.* While it is too early to make a judgement on the philosophic activity of this period, one can trace the main lines of development. To understand a philosophy means both to grasp it as a method and to follow it in the solutions it offers to the great problems posed by the world.

In order to judge fairly contemporary Soviet philosophy, one must keep in mind the fact that all these philosophers belong to a school. And this word must be taken in its strictest sense. One cannot say that dialectical materialism is just a trend of thought like Platonism or Aristotelianism. Within such a trend one finds different schools. Dialectical materialism is a school within the Marxist trend of thought. All the members of this school defend the same positions. Since all Christian philosophers arrive at the same conclusions on the most important philosophic problems, there is no cause to be surprised. What would be surprising would be to see a Christian philosopher conclude to the non-existence of the human soul and a Marxist-Leninist develop a proof for the existence of God. The doctrines of schools are structurally monolithic; which is why they have bad reputations.

But, there is a basic difference between Cartesianism, Kantianism or Christian philosophy, on the one hand, and Soviet Marxism, on the other. While one finds original thinkers in all the first three, there is no originality left in contemporary Soviet thought. It could be said that philosophical schools differ less by their conclusions than by the method of thought used. Two materially identical conclusions could very well originate in basically different *Weltanschauungen.* It was Gilson who said that there was more difference between the medieval philosophers than one has seen in the history of philosophy since Descartes. But these medievals all admitted the immortality of the soul, the existence of God, etc. In contemporary Soviet philosophy there is identity not only of conclu-

sions but also of method. Everyone is aiming at the same end-result. Almost all are taking the same path. In such a case the historian of philosophy has to note that the school is degenerating into a scholasticism which is a stereotyped series of affirmations and negations.

Contemporary Soviet philosophy is without doubt the least critical of philosophies. It is never surprised; it never questions; it never reads the sources. On any question at all – the problem of the universals, the question of substance, the difficult matter of the dialectic – the stock answer is: no philosopher before Marx found a true solution; on the other hand, Marx has completely solved the problem. The Soviet philosopher never hesitates: he has the answer to everything. He sees himself as modest and non-dogmatic because he says that the enquiring mind can always extend his solutions – as long, of course, as it is illuminated by Marxism-Leninism. Neither the world and its adventures nor the great philosophic doctrines of the past embarrass the contemporary Soviet philosopher. Plato, Aristotle, Kant or Hegel do not worry him since he simply does not bother to read them. In any case, any truth contained in any other philosophy is pre-Marxist and, therefore, contained in Marxism. The easiest way to discredit contemporary Soviet philosophy would be to translate one of their books on the history of philosophy. This miserable situation is a hangover from the Stalinist era. After the condemnation of Deborin, Soviet philosophy was directed by sycophants who quickly killed any authentic research. When Stalin wrote "Marxism is the enemy of all dogmatism", Soviet philosophy was already the most dogmatic of all.

Philosophic culture is the result of great patience. Therefore, this sycophantic habit and dogmatic tone cannot be done away with overnight. It is, however, a fact that the philosophic climate has changed since the death of Stalin, and it is not too much to say that there is a sort of renaissance of philosophic activity in the Soviet Union. One finds a new conception of self-criticism. Whereas before the de-Stalinisation self-criticism involved publicly admitting one's errors and demanding forgiveness, it is not unusual now to find an author whose book is condemned coming back with a defence. Also, the very official *Voprosy filosofii* has asked philosophers to be more respectful toward the thought of others and not to simplify the doctrine of the adversaries of Marxism. Some Soviet Marxists are already treading this path. When one remembers that one wrong word, exploited by the more or less conservative group (e.g.,

Maksimov, Rozental', Judin), can result in difficulties which can go as far as loss of one's teaching position, one has to admit that there are some courageous philosophers in the Soviet Union. In general one can say that the present level is superior to that of the Stalinist period but definitely inferior to that of the years 1920–1930. It is still mediocre; it is no longer lamentable.

Under the heading 'Categories of Dialectical Materialism', contemporary Soviet philosophers have grouped and restructured the problems which their Western counterparts treat in works on metaphysics. If we look not at the conclusions but at the general inspiration of this philosophy, we see that there are three contributing trends: the scientific attitude, the Hegelian dialectic, and Aristotelian realism. Although the three tendencies are not combined in a superior synthesis, each element sufficiently reacts on the others so that it is true to say that contemporary Soviet philosophy is not to be confused with scientific positivism, or with authentically dialectical thought, or with realist philosophy.

Contemporary dialectical materialism has practically no more control over scientific activity. All the sciences are almost completely independent. The distinction between bourgeois nuclear physics and socialist physics is only a bad memory. Science has lost its 'class-character' and the scientist intends to preserve his newly found freedom.

But Marxist-Leninist philosophy is so impressed by scientific truth that it is constantly in danger of falling into scientism. We have seen that, on the epistemological plane, Soviet orthodoxy insists on an organic bond between science and philosophy while refusing to allow philosophic reflection to dissolve itself in scientific research. However, contemporary Soviet philosophers do not respect their own principle since we have seen how they try to solve all serious problems with purely scientific arguments. To reject the idea of creation because physics teaches the law of the conservation of energy or to declare that the coming to be of man is explained by the dialectical leaps of a matter without finality – these are views which a Western philosopher, even a materialist, could hardly espouse. And contemporary Soviet philosophy is asking science to prove materialism precisely at a time when scientific thought, for all its penetration of the ontic real, is becoming progressively aware of the fact that it can make not the slightest contribution to the problem of being.

Why do contemporary Soviet philosophers make such frequent use of

pseudo-scientific reasonings? This is due, in part at least, to the heritage of Engels. But the more decisive reason is that contemporary Soviet philosophers have an absolute confidence in science. For them, the prestige of philosophic truth is less than that of scientific truth. To renounce scientific rationalism would be to deprive the theses of dialectical materialism and the three laws of the dialectic of their apodictic character. The Soviets seem to think that all their philosophic theses are derived from and based on science. This is an amazing pretension which many scientists – including some Soviets – consider dogmatic. Merleau-Ponty was indignant to see the Stalinist Marxists refuse the conclusions of modern science in the name of their philosophic theses. He would be no less surprised to find that the post-Stalinist Marxists affirm that all the discoveries of science confirm diamat and that diamat encourages the development of science. Scientific positivism developed as a reaction to 19th-century *Naturphilosophie*. Soviet orthodoxy – a philosophy which is incomprehensible because uncertain – is both a scientism and a new *Naturphilosophie*.

Contemporary Soviet philosophy is just as ambiguous when it comes to the double tendency of dialectic and realism. The famous question about the 'dialectic of nature' arises precisely because Marxist orthodoxy wants to be both realist and dialectic. But the quarrel which has gone on since Lukács between the partisans and opponents of the dialectic of nature runs the risk of becoming useless because the participants do not speak the same language.

In the first place, the Western opponents of this doctrine should recognise that Hegel left the Marxists a stacked deck, It was neither Marx nor Engels but Hegel who first talked about a dialectic of nature. Of course, Hegel did not conceive it without the Logos, and the opponents of Marxism-Leninism are probably correct in saying that a dialectic without Logos is unintelligible. But, they can also see that Hegel's solution is unsatisfactory. Kojève noted that the extension of an anthropological dialectic to nature is not justified and he pleaded for an ontological dualism: on the one hand, an ontology of identity for nature and, on the other, a dialectical ontology for human practice. In a recent argument on the dialectic both Sartre and Hyppolite think that Hegel was never as idealist as in the *Science of Logic* precisely because he deduced nature from the dialectical categories.

Contemporary Soviet philosophers do not feel obliged to accept either of these views. They think that Kojève's position involves an epistemological dualism which harms the principle of the unity of knowledge. Their spontaneous opening on the world leads them to deal with the great problems of classical ontology. But they solve these difficult questions (the nature of knowledge, the primacy of matter over spirit, the nature of causality, etc.) with an inextricable mixture of realist understanding and dialectical reason.

The recent studies on the categories of dialectical materialism appear as a reasoned return to Hegel. Contemporary Soviet orthodoxy has even revised Stalin's official judgements on the importance of Hegelianism. The problems of knowledge and being are expressed in Hegelian terms. But, one should not be fooled by appearances. As a matter of fact, realism is the basic attitude of contemporary Soviet philosophy. Almost all recent treatises on logic are Aristotelian. Critique of knowledge is almost completely based on a theory of universals following the moderate realist line, halfway between sensualism and idealism. Finally, contemporary Soviet philosophy posits the primacy of being over knowing, admits the ontological value of the principle of causality, and considers the universe as the result of a hierarchy of essences which develop according to an order. This is all genuinely realist and, at times, even seems Aristotelian. But a realistic attitude requires that one pose the serious questions on the absolute unity of nature, on the basis of the world, on the sense and significance of evolution, as well as on nature and the place of spirit. He who follows the line of realist reflection must necessarily ask if the physical given he studies is based in matter or in the Logos.

Soviet orthodoxy teaches that matter is the original substance and that veritable realism is necessarily a materialism. This is not new: it is the position of Democritus, Epicurus and the authors of the Encyclopedia. But while the classical materialists ('vulgar' materialists in Soviet terminology) used mechanicism in reaching materialist conclusions, Soviet philosophy takes another path. Western thought is stunned to see Soviet orthodoxy ask Hegel and the dialectic to serve as the basis of materialism. For, if Soviet philosophers often talk about dialectical contradiction, the negation of negation, the concrete concept, etc., this is because they think that these categories will allow them to give a materialist explanation of the world. Objections on the origins of movement meet the answer that the

prime mover is unnecessary because dialectical contradictions within being itself suffice to explain movement. The answer to creationism is always the same: the origins of life and of the human psyche are to be explained by dialectical leaps. Finally, dialectical negation makes possible the elimination of finality from the world. As we have noted throughout this book, Soviet orthodoxy uses dialectical reason to try to avoid the problem of transcendence toward which its basically realistic attitude is leading it. Sartre has seen this clearly: "Many Marxists accept the dialectic of nature precisely because they want to eliminate theology."[1] Dialectical ontology is a new theology.

This connection of the dialectic with ontology has nefarious consequences for both the dialectic and ontology. By putting it in being, Soviet orthodoxy 'naturalises' the dialectic. And, in the end, the category of dialectic loses its specific character completely. From being a movement of ideas which is the tendency of the totality to realise itself, the dialectic is reduced to a simple process of spatial exteriority. Real dialectical negation is dissolved into oriented movement and change. Only by distorting the meaning of words can Marxism-Leninism talk about dialectical contradictions because the oppositions of inanimate nature are in reality but antagonisms of physical-chemical forces. This dialectical reversal of the dialectic finishes in a dialectic which has no reference to the Logos. Of course, at a certain moment of the evolutionary process, spirit emerges from matter. But this emergence is late and both spirit and Logos remain eternally superfluous. Matter which was well able to get along without spirit maintains it under a rigid determinism. The Western philosopher can, therefore, say with some justification that the Soviet philosopher has lost the originality of dialectical reason. And he has to ask if such a denatured dialectic can still explain the essential rationality of the world.

However, the contemporary Soviet philosophers think that they have built up a sufficiently dialectical system to be able to answer the realist thinker who wants to talk about transcendence. But, the realist philosopher – though he grant the validity of the point of departure of Soviet philosophy – cannot see how a dialectic which is so little dialectical can help avoid the problem of transcendence. There is this constant ambiguity of contemporary Soviet philosophy which makes any dialogue difficult. To

[1] *Marxisme et existentialisme*, Paris 1962, p. 25.

the Hegelian who starts with the dialectical unity of Logos and nature, the contemporary Soviet philosopher answers that the primary datum is not the Logos but nature: this is realism. But when the realist wants to know about the basis of nature, and of the original Logos, the Soviet brings in his naturalised dialectic. It is this perpetual oscillation which allows him to remain within materialism and to rid himself of the Logos. Soviet orthodoxy thus prefers incoherence to theism. In the end this philosophy is neither realist nor dialectical but an evolutionism with a strong dose of scientism. And, since it does not want to be an empiricism, one has to wonder if it has not failed completely. If only it would drop the dialectic of nature, its realistic tendency would enable it to deal honestly with the great problems of ontology. And the human sciences would once again become the privileged domain of dialectical reason.

The Marxist-Leninists would probably object that this solution would unduly separate histomat from diamat and lead to dualism. It is up to them to clearly see the real connection that they have established between the two domains. They think that the dialectic is the bridge between nature and human action. As a matter of fact, as presented by them, this dialectic is only a property of matter-substance. The connection that the dialectic is supposed to make is a mirage. The unity of Marxist-Leninist doctrine is due to its materialism and has nothing to do with the dialectic. If they dropped the dialectic of nature, contemporary Soviet philosophers could allow the realistic tendency to develop itself. Because they insist on remaining materialists they could as well devote themselves to showing that God and the divine have nothing to do in metaphysics. They would thus ally themselves with an authentic current of contemporary philosophic thought. Spiritualist philosophers could then try to establish a real dialogue since contemporary Soviet philosophy would have finally become coherent.

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